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101ST CONGRESS
1st Session

SENATE

REPORT
101-133

HYDROELECTRIC FAIRNESS ACT OF 1989

SEPTEMBER 15 (legislative day, SEPTEMBER 6), 1989.—Ordered to be printed

Mr. JOHNSTON, from the Committee on Energy and Natural Resources, submitted the following

REPORT

together with

ADDITIONAL VIEWS

[To accompany S. 635]

The Committee on Energy and Natural Resources, to which was referred the bill (S. 635) to prevent the unintended licensing of federally nonjurisdictional pre-1935 unlicensed hydroelectric projects, having considered the same, reports favorably thereon with an amendment and an amendment to the title and recommends that the bill, as amended, do pass.

The amendments are as follows:

Strike out all after the enacting clause and insert in lieu thereof the following:

SEC. 2. Part I of the Federal Power Act (16 U.S.C. 791a et seq.) is amended by adding the following new section at the end thereof:

"SEC. 32. (a) The Commission is prohibited from issuing an original license to any person, State or municipality, other than the owner of the project works, for any project works:

"(1) on which there has been no construction within the meaning of section 23(b) since August 26, 1935; or

"(2) for which a declaration of intention was filed under section 23 and the Commission did not find within one year of the filing that the project works would affect the interests of interstate or foreign commerce.

"(b) The Commission is prohibited from requiring an original license for project works on which there has been no construction within the meaning of section 23(b) since August 26, 1935 if:

"(1) the stream, or part thereof, over or in which such project works have been constructed, was not navigable before the time of such construction; or

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"(2) a declaration of intention was filed under section 23 and the Commission found that the interests of interstate or foreign commerce would not be affected by the construction of such project works."

Amend the title so as to read:

A bill to prevent the unintended licensing of federally nonjurisdictional, unlicensed hydroelectric projects.

Purpose of the Measure

The purpose of S. 635, as reported by the Committee, is to prevent the unintended licensing of certain, federally nonjurisdictional hydroelectric projects in order to preclude their hostile acquisition by non-owners: "claim jumping" in the vernacular. These projects are at risk of being claim jumped because they don't have the protection of a Federal license. The projects don't have a license because in 1935 Congress "grandfathered" them from Federal jurisdiction and the requirement to be licensed. The bill would achieve its purpose by clarifying and restricting the licensing authority of the Federal Energy Regulatory Commission under the Federal Power Act.

New section 32(a) of the Federal Power Act, created by S. 635, would prevent FERC from granting a license for a hydroelectric project to anyone other than the owner if: (1) the project was built prior to August 26, 1935 and there has not been subsequent construction on the project that would require it to be licensed; or (2) a declaration of intention to build the project without licensing was previously filed and the FERC did not find within one year of the filing that the interests of interstate or foreign commerce were affected by construction of the project such that licensing was required.

New section 32(b), created by S. 635, would prohibit FERC from requiring a license for a project on which there has been no construction since August 26, 1935 if: (1) the stream, or part thereof, on which the project was constructed was not navigable prior to such construction; or (2) a declaration of intention to construct the project without licensing was filed and the FERC found that the interests of interstate or foreign commerce would not be affected by such construction.

Background and Need

Section 23(b) of the Federal Power Act requires anyone intending to construct a hydroelectric project without a license in waters over which Congress has jurisdiction under the Commerce Clause of the Constitution to file a declaration of intention to do so with the Federal Energy Regulatory Commission (FERC). Generally, if the waters are determined by FERC to be navigable or if FERC finds that the interests of interstate or foreign commerce would be affected by the construction, the project may not proceed without a license. If neither of these findings are made, licensing is generally not required. However, the requirement to file a declaration of intention has been interpreted only to apply prospectively from the date of enactment of the Federal Power Act, August 26, 1935. Prior to this date, the filing of a declaration of intention was voluntary

under earlier provisions contained in the Federal Water Power Act of 1920 (which preceded the Federal Power Act).

Thus, under existing law, hydroelectric projects: (1) which were constructed prior to August 26, 1935 on non-navigable waters of the United States; (2) upon which there has been no construction since that date; (3) and which meet certain other criteria[1] are not required to be licensed. See, *Farmington River Power Co.* v. *FPC,* 455 F.2d 86 (2d Cir. 1972). For convenience, such projects are referred to hereafter as "pre-1935, nonjurisdictional projects." [2] While precise figures are unavailable, there appear to be approximately 350 pre-1935, nonjurisdictional projects located in 38 states and Puerto Rico. They are owned by investor-owned utilities, municipalities, irrigation districts and private industry.

Until recently it was generally assumed that pre-1935 nonjurisdictional projects were completely beyond the reach of regulation under the Federal Power Act. However, in *Cooley* v. *FERC,* 843 F.2d 1464 (D.C. Cir. 1988), cert. denied 57 U.S.L.W. 3313 (Oct. 31, 1988), the D.C. Circuit ruled that, while FERC could not require the licensing of pre-1935, nonjurisdictional projects under section 23(b) of the Federal Power Act, it may license such projects upon voluntary application under its general licensing authority set out in section 4(e) of the Act.

The *Cooley* case involved a license application by the owner of a pre-1935 nonjurisdictional project. However, the dictum and court indicated that its ruling would permit non-owners, as well as owners, to apply for and receive licenses for pre-1935, nonjurisdictional projects:

> [P]re-1935 project owners [are] at risk because volunteer applications need not be project owners. *Thus, the owner of a project not requiring a license may find himself the target of a license application by strangers.* 843 F.2d at 1470 (emphasis added).

Since a license conveys the exclusive right to operate a project together with the right to exercise the power of eminent domain for purposes of acquiring property necessary for the project, the *Cooley* dictum raises the possiblity of third party "claim jumping" with respect to pre-1935, nonjurisditional projects. In fact, the D.C. Circuit in *Cooley* cited an ongoing proceeding in which FERC has permitted Rio Hydroelectric Associates to file a license application for a pre-1935, nonjurisdictional project currently owned and operated by Orange and Rockland Utilities, 843 F.2d at 1470–71; see *Orange & Rockland Utilities, Inc.,* 40 FERC para. 61,222 (1987).

In addition to the interpretation of section 4(e) articulated by the court in *Cooley,* FERC has held in the Orange & Rockland proceeding that section 23(b) of the Federal Power Act itself can be used by third parties to forcibly acquire pre-1935, nonjurisdictional projects.

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[1] Apart from questions of navigability and effects on commerce, licensing for both pre-1935 and post-1935 projects is also generally required if the project in question is located on public lands or reservations of the United States or uses surplus water or water power from a Government dam. 16 U.S.C. 817.

[2] Projects that were constructed pursuant to permits or rights of way granted prior to June 10, 1920 (the date of enactment the Federal Water Power Act of 1920) are not subject to the licensing authority of the Federal Power Act. See 16 U.S.C. 816. Such projects are not included within the term "pre-1935, nonjurisdictional projects."

As noted above, section 23(b) requires pre-1935, nonjurisdictional projects to be licensed if any post-1935 construction is undertaken (for example, increasing the height of the dam or installing a larger turbine). But because section 23(b) does not explicitly require the person proposing the new construction to be the owner of the project, FERC has ruled that a non-owner can use this provision to obtain a license and thereby acquire the project. *Orange & Rockland Utilities, Inc.*, 44 FERC para. 61,236 (1988).

One might ask why the owners of pre-1935, nonjurisdictional projects don't simply apply for a license. If they had a license, wouldn't they be protected against claim jumpers during the license term? The answer is yes, but there are several significant and valid reasons why owners of unlicensed projects are reluctant to seek the protection of a federal license. First, filing for a license is a direct invitation for others to file a competing application, which is explicitly provided for by the Federal Power Act. There is no guarantee that an owner-applicant will ultimately obtain the license. This is particularly a problem if the competitor for a privately-owned project is a municipality because the Federal Power Act grants municipalities a preference in such situations. While that possibility might be acceptable for a new hydroelectric project, it would be a significant risk with respect to an existing project. The loss of a hydroelectric project generally translates into a rate increase for a utility's customers.

The intent of the Commission and the thrust of the *Cooley* and *Orange & Rockland* cases is troubling for a number of reasons.

First, it is difficult to believe that Congress in 1935 envisioned such a result under the Federal Power Act. Both the legislative history of the Federal Power Act and the statute itself are silent on the interplay of sections 4(e) and 23(b), and this silence suggests the most reasonable conclusion concerning congressional intent. It is implausible that on one hand Congress would create a category of projects not required to be licensed, and on the other hand, intend such projects to be subject to forced acquisition through licensing without saying so explicitly. For many years the common assumption has been exactly the opposite. Society values the repose of reasonable and settled expectations. At this late date it is bad policy to override such expectations without a compelling legal reason to do so.

Second, it appears that one incentive for third parties to file license applications for pre-1935, nonjurisdictional projects lies in the fact that they may be converted into qualifying facilities under the Public Utility Regulatory Policies Act of 1978 (PURPA). Under this scenario, a third party could conceivably use the power of eminent domain to take an unlicensed project from a utility at the project's depreciated value and then require the utility to purchase the power back from the project at high avoided cost rates.[3] Nei-

[3] Such a conversion is apparently intended by Rio Hydroelectric Associates with respect to the project it is seeking to acquire from Orange & Rockland Utilities. Nevertheless, it is not entirely clear that such a strategy would be successful due to legal questions concerning the ability to achieve qualifying facility status in this instance and the price at which the Orange & Rockland project could be acquired using the power of eminent domain.

ther the customers of the utility nor the purposes of PURPA would be well served by such gaming of the regulatory system.

Third, many pre-1935, nonjurisdictional projects are very small (less than 1 mw). The licensing of such projects at a typical cost of hundreds of thousands of dollars could render them uneconomical from a ratepayer standpoint. Yet FERC's apparent policy concerning pre-1935, nonjurisdictional projects creates this risk.

Fourth, it seems to be a matter of common acceptance that FERC's staff resources in the hydroelectric area are stretched very thin, a situation that will only get worse as the bulk of currently licensed projects come in for relicensing in the 1990s. In the absence of a pressing policy need it hardly makes sense to add a whole new category of projects to the Commission's existing hydroelectric responsibilities.

Finally, in the absence of Federal jurisdictional unlicensed projects are not simply left to their own devices. They are subject to the exercise of comprehensive state power in such areas as safety and the environment. The Subcommittee on Water and Power received testimony that all states but two have statutes that regulate unlicensed hydroelectric projects with regard to safety. At least one state agency has actively opposed the exercise of FERC authority over unlicensed projects. Comments by Natural Resources and Environmental Protection Cabinet of Commonwealth of Kentucky, FERC Docket No. EL88-37-000 (November 10, 1988).

In general, the basic policy of the Federal Power Act favors competition for the nation's hydroelectric resources. Moreover, it may be argued that the insulation of owners of unlicensed projects from the competitive sphere may prevent beneficial updating and improvement of these projects that would otherwise occur. Nevertheless, on balance the public interest favors protecting the owners of pre-1935, nonjurisdictional projects for the reasons outlined above. As introduced, S. 635 would achieve this result by prohibiting FERC from issuing a license for nonjurisdictional projects to anyone other than the current owner.

In the hearing on S. 635 and subsequently, the Committee has been made aware of two additional cases involving the assertion of jurisdiction over unlicensed projects in circumstances somewhat different from those covered by the bill as introduced. These two cases, together with the situation that has given rise to S. 635, suggest that FERC is embarked upon an overzealous attempt to license as many unlicensed projects as possible, regardless of whether such action involves unreasonable exercise or interpretation of the Commission's authority.

In one case, Western Massachusetts Electric Company (WMEC) currently owns three hydroelectric projects that were constructed prior to 1935 on the Chicopee River in Massachusetts. In 1970 WMEC filed a license application for the projects, but in 1979 FERC finally dismissed the application on the grounds that the Chicopee River is not navigable at the project site, while reserving its right to reexamine this determination at a later time. In 1988 FERC determined that the Chicopee River is in fact navigable at one of the project sites and ordered WMEC to file a license application. Pending the filing of its license application, WMEC submitted a preliminary permit application for the project (which if granted

would give it the exclusive right to file a license application). However, as a result of FERC's dismissal of its original license application, WMEC is now facing a competing permit application from a municipality which claims a preferential right to receive a permit under provisions of the Federal Power Act that favor public bodies. Western Massachusetts Electric Company's Motion to Intervene, *South Hadley Electric Light Department,* FERC Project No. 10734 (May 30, 1989).

In another case, a predecessor company to Kentucky Utilities in 1922 filed a declaration of intention to construct a project without licensing on the Dix River in Kentucky. The Federal Power Commission (FPC), which was the predecessor agency to FERC, ruled as follows:

> The Commission having caused the case to be investigated, *and it appearing from such investigation that the proposed dam is above the navigable portion of the Dix River,* and that the construction will in no way affect the interests of interstate or foreign commerce, it was voted that the Commission finds that the interests of interstate or foreign commerce will not be affected by the proposed construction. 2 FPC Ann. Pep. 101 (1922) (emphasis added).

However, in 1988 FERC's Office of Hydropower Licensing determined that Kentucky Utilities was required to file a license application for the project because it is located on a navigable waterway. Despite the facially clear intent of the 1922 FPC order, FERC concluded that the FPC in the language quoted above had not actually "found" the Dix River to be non-navigable and that, even if it had made such a finding, the FERC has the power under an extension of applicable precedent to reopen this determination. *Kentucky Utilities Co.,* 45 FERC para. 61,482 (1988). The Committee does not find the logic of the Commission compelling.

While the Western Massachusetts and Kentucky Utilities cases present factual situations that are different from those covered by S. 635 as introduced, they involve similar unreasonable disruption of settled matters. As described below, the amendment to S. 635 adopted by the Committee would expand the protections of the bill to cover these instances as well as certain others.

Legislative History

In the 100th Congress legislation similar to S. 635 was introduced by Senator McClure as S. 2919 on October 20, 1988, and by Congressman Lent as H.R. 5445 on October 3, 1988. No other action was taken in the 100th Congress.

S. 635 was introduced on March 16, 1989 by Senator McClure along with Senators Johnston, Garn, Nickles, Bradley and Murkowski. Senators Lautenberg, Ford and D'Amato have been added as additional cosponsors. Similar legislation (H.R. 1069) was introduced in the House of Representatives by Congressman Lent on February 22, 1989.

The Subcommittee on Water and Power held a hearing on S. 635 on May 18, 1989.

COMMITTEE RECOMMENDATION AND TABULATION OF VOTES

The Senate Committee on Energy and Natural Resources, in open business session on August 2, 1989, by unanimous vote of a quorum present recommends that the Senate pass S. 635, if amended as described herein.

The rollcall vote on reporting the measure was 19 yeas and 0 nays as follows:

YEAS	NAYS
Johnston	
Bumpers	
Ford	
Metzenbaum*	
Bradley	
Bingaman*	
Wirth	
Conrad	
Heflin	
Rockefeller	
McClure	
Hatfield	
Domenici	
Wallop	
Murkowski	
Nickles	
Burns	
Garn	
McConnell*	

Indicates vote by proxy.

COMMITTEE AMENDMENTS

The Committee amendment expands the kinds of projects that receive protection against third party license applications. Under new section 32(a) of the Federal Power Act as added by the amendment, FERC is prohibited from issuing a license to anyone other than the owner with respect to any project that is located on non-navigable waters and on which there has been no construction since August 26, 1935. This is the situation covered by S. 635 as introduced. In addition the amendment applies this prohibition to projects on which there has been no construction since August 26, 1935, but which may ultimately be found to be located on navigable waters (i.e. the situation raised by the Western Massachusetts case).

Finally, new section 32(a) provides for the protection of project owners in the case of projects for which a declaration of intention is filed and the Commission does not find the project jurisdictional within one year. Given that a year should be enough time to make a ruling on a declaration of intention, this last category presupposes instances in which the Commission changes its mind as to the effect of a project on commerce. In such situations, it is equitable that a license be awarded to the project owner. However, the Committee intends the protection afforded by new section 32(a) to

apply to original licenses only and not to the relicensing of projects.

New section 32(b) of the Federal Power Act as added by the Committee amendment would prohibit FERC from requiring a license for any project on which there has been no construction since August 26, 1935 if: (1) the stream or part of the stream where the project has been constructed was not navigable before such construction; or (2) if a declaration of intention was filed and the FPC found that the interests of interstate or foreign commerce would not be affected by such construction. The effect of this new subsection is to provide a remedy in the fact situation presented by the Kentucky Utilities cases. In addition, it has the effect of excluding consideration of any events that occur after project construction or that occur away from the portion of a waterway where a project is located, for purposes of determining the navigability of pre-1935 projects.

The Committee does not intend S. 635, as reported, to apply to any currently licensed projects.

Cost and Budgetary Considerations

The following estimate of the costs of this measure has been prepared by the Congressional Budget Office:

U.S. Congress,
Congressional Budget Office,
Washington, DC, August 16, 1989.

Hon. J. Bennett Johnston, Jr.,
Chairman, Committee on Energy and Natural Resources,
U.S. Senate, Washington, DC.

Dear Mr. Chairman: The Congressional Budget Office has reviewed S. 635, a bill to prevent the unintended licensing of federally nonjurisdictional unlicensed hydroelectric projects, as amended and ordered reported by the Senate Committee on Energy and Natural Resources on August 2, 1989. We estimate that this bill would result in no significant cost to the federal government or to state or local governments.

The bill would amend the Federal Power Act to protect owners of unlicensed pre-1935 hydroelectric projects from having their projects taken over by other parties through the federal hydroelectric licensing system.

If you wish further details on this estimate, we will be pleaded to provide them. The CBO staff contact is Kim Cawley, who can be reached at 226–2860.

Sincerely,

Robert D. Reischauer,
Director.

Regulatory Impact Evaluation

In compliance with paragraph 11(b) of Rule XXVI of the Standing Rules of the Senate, the Committee makes the following evaluation of the regulatory impact of the bill as reported.

The bill would not impose government-established standards or significant economic responsibilities on private individuals and businesses.

No personal information would be collected in administering the program. Therefore, there would be no impact on personal privacy.

Little if any additional paperwork would result from enactment of S. 635.

EXECUTIVE COMMUNICATIONS

Legislative reports on S. 635 were requested from the Office of Management and Budget and the Federal Energy Regulatory Commission but were not received at the time this report was filed. The following testimony on S. 635, as introduced, was submitted by Kristina Nygaard, Assistant General Counsel for Hydroelectric Licensing, Federal Energy Regulatory Commission at a hearing by the Subcommittee on Water and Power on May 18, 1989. In addition, the Subcommittee received the following answers to questions submitted after the hearing.

STATEMENT OF

KRISTINA NYGAARD

ASSISTANT GENERAL COUNSEL FOR HYDROELECTRIC LICENSING

FEDERAL ENERGY REGULATORY COMMISSION

BEFORE THE

SUBCOMMITTEE ON WATER AND POWER

OF THE

COMMITTEE ON ENERGY AND NATURAL RESOURCES

UNITED STATES SENATE

MAY 18, 1989

Mr. Chairman and members of the Subcommittee, I am pleased to be here this morning to discuss S. 635, a bill to amend the Federal Power Act by removing the authority of the Federal Energy Regulatory Commission to license a specific class of existing hydroelectric projects.

My name is Kristina Nygaard, and I am Assistant General Counsel for Hydroelectric Licensing at the Commission. With me today is Mark Robinson, Director of the Division of Project Compliance and Administration in the Commission's Office of Hydropower Licensing. Mr. Robinson and I are appearing before you as technical witnesses and do not speak for the members of the Commission.

S. 635 would prohibit the Commission from issuing an original license for any project works located on nonnavigable waters and on which there has been no construction within the meaning of Section 23(b) of the Federal Power Act since August 26, 1935, to any person, State, or municipality other than the owner of the project works.

The bill provides that only the project owner can obtain a license for the continued operation and maintenance of any existing hydroelectric project located on nonnavigable waters and which has had no new construction since August 26, 1935. (Post-1935 construction within the meaning of Section 23(b)(1) refers to work which would substantially enlarge or change an existing project; see Aquenergy Systems, Inc. v. FERC, 857 F.2d 227 (4th Cir. 1988).) These are projects that the Commission is authorized to license pursuant to Section 4(e) of the Act, but that are not required to be licensed by Section 23(b) of the Act. For convenience, these projects are sometimes referred to as "4(e) projects."

That the Commission's authority to license projects is somewhat broader than its authority to require licensing was

recently affirmed by the United States Court of Appeals in Cooley v. FERC, 843 F.2d 1464, cert. denied, 57 U.S.L.W. 3313 (Oct. 31, 1988).

S. 635 appears to leave intact the requirement of Section 23(b)(1) of the Federal Power Act that (assuming there is no valid federal pre-1920 permit) licensing is required if the project is located on a navigable water of the United States; if the project is located on public lands or reservations of the United States; or if the project uses the surplus water or water power from a Government dam. S. 635 would however remove the Commission's authority to issue a license to anyone but the project owner for a project that is located on a nonnavigable water and has no post-1935 construction, even if the project is located on public lands or reservations of the United States, uses surplus water or water power from a Government dam, or affects the navigable capacity of downstream navigable waters.

Under Section 23(b)(1) of the Act, any post-1935 construction at a hydroelectric project (assuming the project will affect interstate commerce) must be authorized by a license. Under current law, a license for new construction can be obtained by the project owner or by a non-owner applicant. S. 635 would change existing law to provide that only the project owner can undertake post-1935 construction at a 4(e) project. This means that post-1935 construction, for example to add available generating capacity or make other improvements at the project site, can occur only when and as the project owner chooses.

The Commission issues licenses for all the project works that form a complete unit of development, which is defined by Section 3(11) of the Federal Power Act to encompass water conduits, dams, reservoirs, lands, and appurtenant structures. S. 635 permits issuance of a license for 4(e) "project works"

only to the owner of the project works. Therefore, enactment of S. 635 may prevent the Commission from issuing a license to a developer who, for example, proposes to install generating facilities at a pre-1935 dam owned by someone else, even if the dam has never been used to generate power. Alternatively, S. 635 might allow the Commission to license all the features of the complete unit of development other than the pre-1935 dam. Whereas the Commission is aware of only one proceeding where a non-owner is competing with the owner of an operating project for a license for the project, it is less unusual for a non-owner developer to file an application to take over another entity's dam, that is not currently being so used, for hydropower purposes. Clarification on this point would therefore be useful.

S. 635 would prohibit the Commission from issuing an original license, other than to the owner, for the category of projects in question. Since the bill does not prohibit new licenses (relicenses), then it appears that, where a project owner has voluntarily obtained a license for his 4(e) project, on relicensing competition by non-owners would be allowed.

This concludes my prepared statement, Mr. Chairman. Mark Robinson and I would be happy to answer any questions which you may have.

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D. C. 20426

JUN 16 1989

Dear Chairman Bradley:

Enclosed are responses prepared by Commission staff to post-hearing questions which you submitted pursuant to your subcommittee's May 18, 1989, hearing on S. 635, the Hydroelectric Fairness Act of 1989.

I hope that this information is helpful to you.

Sincerely,

Kristina Nygaard

Kristina Nygaard
Assistant General Counsel
Hydroelectric Licensing

Honorable Bill Bradley
Chairman
Subcommittee on Water and Power
Committee on Energy and Natural Resources
United States Senate
Washington, D.C. 20510

Question 1: Please provide the Committee a list of all non-federal unlicensed hydroelectric projects. Please list these by State, indicating the plant name, the owner, the stream name, the class, the project capacity and the year of original construction.

Answer: TABLE 1 lists all non-federal unlicensed hydroelectric projects (UL) identified by the Commission to date.

TABLE 1

UNLICENSED AND OPERATING HYDROELECTRIC PROJECTS 1/

06/09/1989

* STREAM NAME	PLANT NAME	OWNER	CLASS	STATE	CAPACITY KW	CONST YEAR
***						
* KASHTEU BAY,CHATHAM STRAIT	HIDDEN FALLS	ALASKA DEPT FISH & GAME	M	AK	200	1979
* GOLD CR,GASTINEAU INLET	GOLD CREEK	ALASKA ELEC LT & PWR CO	P	AK	1600	
* WARM SPRINGS BAY	BAHOVEC	BAHOVEC,FRED	I	AK	3	
* SKECKLEY CR	SKECKLEY	BUCHAN & HEINEN PEG CO	I	AK	28	
* BARANOF R,WARM SPRING BAY	BARANOF WARM SPRING	GRUENING,CLARE S	R	AK	14	
* PURPLE LAKE	PURPLE LAKE	METLAKATLA PWR AND LIGHT	M	AK	3900	
* ONE MILE CR	ONE MILE	NEW ENGLAND FISH CO	I	AK	8	
* KODIAK ISLAND	PARKS	PARKS CANNING CO	I	AK	8	
* INDIAN R	COLLEGE	SHELDON-JACKSON JR COLLEGE	M	AK	50	
* BARANOF R	SONNENBURG	SONNENBURG, WALLACE	I	AK	3	
* S CONSOL CNL(SALT R)	S CONSOLIDATED	SALT R PROJ AG IMP P DIST	M	AZ	1400	1980
* SALT R	HORSE MESA	SALT R PROJ AG IMP P DIST	M	AZ	99900	1969
* CROSS CUT CNL(SALT R)	CROSS CUT	SALT R PROJ AG IMP P DIST	M	AZ	3000	
* SALT R	ROOSEVELT	SALT R PROJ AG IMP P DIST	M	AZ	36000	
* SALT R	HORSE MESA	SALT R PROJ AG IMP P DIST	M	AZ	29700	
* SALT R	MORMON FLAT	SALT R PROJ AG IMP P DIST	M	AZ	48600	
* SALT R	MORMON FLAT	SALT R PROJ AG IMP P DIST	M	AZ	9200	
* SALT R	STEWART MOUNTAIN	SALT R PROJ AG IMP P DIST	M	AZ	10400	
* TUOLUMNE R	R KIRKWOOD	HETCH HETCHY WTR & PWR	M	CA	104022	
* HETCH HETCHY AQUEDCT	MOCCASIN CREEK	HETCH HETCHY WTR & PWR	M	CA	90000	
* CHERRY CR, TUOLUMNE R	D R HOLM	HETCH HETCHY WTR & PWR	M	CA	135000	
* ALL AMER CNL(COLO.R)	DROP 2	IMPERIAL IRRIG DIST	M	CA	10000	
* ALL AMER CNL(COLO.R)	PILOT KNOB	IMPERIAL IRRIG DIST	M	CA	33000	
* ALL AMER CNL(COLO.R)	DROP 4	IMPERIAL IRRIG DIST	M	CA	19600	
* ALL AMER CNL(COLO.R)	DROP 1	IMPERIAL IRRIG DIST	M	CA	5850	
* E HIGHLINE CNL(COLO.R)	EAST HIGHLINE	IMPERIAL IRRIG DIST	M	CA	2415	
* W SIDE M CNL(COL.R)	TURNIP	IMPERIAL IRRIG DIST	M	CA	420	
* ALL AMER CNL(COLO. R)	DROP 5	IMPERIAL IRRIG DIST	M	CA	4000	
* CENTER M CNL(COLO.R)	DOUBLE WEIR	IMPERIAL IRRIG DIST	M	CA	560	
* ALL AMER CNL(COLO.R)	DROP 3	IMPERIAL IRRIG DIST	M	CA	9800	
* LA AQUE (SANTA CLARA R)	SAN FERNANDO	LOS ANGELES DEPT W AND P	M	CA	5600	
* LA AQUE (SANTA CLARA R)	FOOTHILL	LOS ANGELES DEPT W AND P	M	CA	11000	
* LA AQUE (SANTA CLARA R)	S FRANCISQUITO 2	LOS ANGELES DEPT W AND P	M	CA	42000	
* FRANKLIN CANYON, LOS ANGELES	FRANKLIN CANYON	LOS ANGELES DEPT W AND P	M	CA	2000	
* LA AQUE (SANTA CLARA R)	S FRANCISQUITO 1	LOS ANGELES DEPT W AND P	M	CA	64375	
* DIVISION CR, OWENS R	DIVISION CREEK	LOS ANGELES DEPT W AND P	M	CA	600	
* COTTONWOOD CR,OWENS R	COTTONWOOD 3	LOS ANGELES DEPT W AND P	M	CA	1500	
* OWENS R	PLEASANT VALLEY	LOS ANGELES DEPT W AND P	M	CA	3200	

1/ This list does not include unlicensed operating hydropower projects that have pending license or exemption applications. Date of construction is included if known.

* OWENS R	CONTROL GORGE	LOS ANGELES DEPT W AND P	M	CA	37500	
* OWENS R	MIDDLE GORGE	LOS ANGELES DEPT W AND P	M	CA	37500	
* OWENS R	UPPER GORGE	LOS ANGELES DEPT W AND P	M	CA	37500	
* LA AQUE (SANTA CLARA R)	HAIWEE	LOS ANGELES DEPT W AND P	M	CA	5600	
* BIG PINE CR, OWENS R	BIG PINE 3	LOS ANGELES,CITY OF	M	CA	3200	
* MIOCENE CNL(MBR NFK FEATHER R	COAL CANYON	PACIFIC GAS & ELECTRIC CO	P	CA	1000	
* W BR N FK FEATHER R	LIME SADDLE	PACIFIC GAS & ELECTRIC CO	P	CA	2000	
* LYTLE CR, SANTA ANA R	FONTANA	SOUTHERN CALIF EDISON CO	P	CA	2950	
* MILL CR, SANTA ANA R	MILL CREEK 1	SOUTHERN CALIF EDISON CO	P	CA	800	
* SAN ANTONIO CR, WALNUT CR	ONTARIO 2	SOUTHERN CALIF EDISON CO	P	CA	320	
* SAN ANTONIO CR, WALNUT CR	SIERRA	SOUTHERN CALIF EDISON CO	P	CA	480	
* SAN ANTONIO CR, WALNUT CR	ONTARIO 1	SOUTHERN CALIF EDISON CO	P	CA	600	
* TOOLOMNE R	LA GRANGE	TURLOCK IRRIG DIST	M	CA	4000	1909
* SAN JUAN R	PAGOSA SPRINGS	LA PLATA ELEC ASSN INC	C	CO	200	
* ST VRAIN CR,BOULDER CR	LONGMONT	LONGMONT, CITY OF	M	CO	611	
* COLORADO R	SHOSHONE	PUBLIC SERVICE CO OF CO	P	CO	14400	
* COLORADO R	GRND VALLEY(PALISADES	PUBLIC SERVICE CO OF CO	P	CO	3000	
* BIG SQUAW CR,RIO GRANDE	SQUAW CREEK	TREGO, ERNEST E	I	CO	8	1948
* YANTIC R	GILMAN	BOZRAH LIGHT AND POWER CO	P	CT	250	1943
* BANTAM R	LITCHFIELD(BANTAM)	CONN LIGHT & POWER CO	P	CT	320	
* WINDSOR LOCKS CNL(CONN R)	WINDSOR LKS(ENFIELD	DEXTER C H AND SONS INC	I	CT	500	
* FARMINGTON R	RAINBOW	FARMINGTON RIVER POWER CO	P	CT	8000	
* SHETUCKET R	OCCUM	NORWICH, CITY OF	M	CT	800	
* BLUE SPRINGS CR,CHIPOLA R	BLUE SPRINGS(MARIANN	FLORIDA PUB UTILITIES CO	P	FL	168	
* ESTATOAH CR,TENNESSEE R	ESTATOAH	GEORGIA POWER CO	P	GA	240	
* OCONEE R	BARNETT SHOALS	GEORGIA POWER CO	P	GA	2800	
* SOQUE R	HABERSHAM	HABERSHAM MILLS	I	GA	1660	
* SOUTH R	SNAPPING SHOALS	THOMAS INDUSTRIES	I	GA	200	
* TOWAH R	CARTERSVILLE	THOMPSON WEINMAN CO	I	GA	625	
* WAILUKU R	WAIAU	HAWAII ELECTRIC LIGHT CO	P	HI	1100	
* WAILUKU R	PUUEO	HAWAII ELECTRIC LIGHT CO	P	HI	2250	
* WAILOA DITCH	KAHEKA	HAWAIIAN COM & SUG CO	I	HI	4002	
* WAILOA DITCH	PAIA	HAWAIIAN COM & SUG CO	I	HI	800	
* LOWER HAMAKUA DITCH	HONOKAA	HONOKAA SUGAR CO	I	HI	800	
* KOHOANA R	WAIAKA	KEKAHA SUGAR CO LTD	I	HI	500	
* WAIMEA R	WAIMEA	KEKAHA SUGAR CO LTD	I	HI	1000	
* KOHALA DITCH	HAMI	KOHALA SUGAR CO	I	HI	350	
* S FK WAILUA R	LOWER LIHUE	LIHUE PLANTATION CO	I	HI	800	
* WAIHAI R,S FK WAILUA R	UPPER LIHUE	LIHUE PLANTATION CO	I	HI	500	
* KALAHEO R	KALAHEO	MCBRYDE SUGAR CO LTD	I	HI	1000	
* MAKAWELI R	HYDRO (KAUMAKANI)	OLOKELE SUGAR CO LTD	I	HI	500	
* WAINIHA R	WAINIHA	PIONEER MILL CO LTD	I	HI	3600	
* KAUAULA STREAM	KAUAULA	PIONEER MILL CO LTD	I	HI	450	
* MAQOOKETA R	MAQOOKETA	IOWA ELEC LT AND PWR CO	P	IA	1200	
* MAQOOKETA	LAKEHURST	IE INDUSTRIES	I	IA		
* IOWA R	IOWA FALLS	IOWA ELEC LT AND PWR CO	P	IA	540	
* MISSISSIPPI R	KEOKUK L&D 19	UNION ELECTRIC CO	P	IA	124800	1911
* CEDAR R	WAVERLY (EAST HYDRO)	WAVERLY, CITY OF	M	IA	495	
* BEAR CR,S FK PAYETTE R	CLIFFORD ROSENBALM	ELLIS,WAYNE R	I	ID	8	
* BLUE MOON CR,SULPHUR CR,M FK	BLUE MOON CR SALMON	HORNBACK,MARVIN E	I	ID	30	
* SNAKE R(OFFSTREAM)	CLEAR LAKE	IDAHO POWER CO	P	ID	2500	

* ELKHORN CREEK	ELKHORN CREEK	JERALD KOOYERS	P	ID		
* SNAKE R	THOUSAND SPRINGS	IDAHO POWER CO	P	ID	8800	
* SODA CR,BEAR R	SODA SPRINGS	SODA SPRINGS, CITY OF	M	ID	100	
* SODA CR,BEAR R	SODA SPRINGS 1	SODA SPRINGS, CITY OF	M	ID	200	
* SODA CR,BEAR R	SODA SPRINGS 4	SODA SPRINGS, CITY OF	M	ID	300	
* ILLINOIS R	MARSEILLES	ILLINOIS POWER CO	P	IL	2024	
* SYLVAN SLOUGH, MISS R	MOLINE L&D 15	IOWA ILL G & E CO	P	IL	3600	
* ST JOSEPH R	ST JOE DAM	FT WAYNE, CITY OF	M	IN	100	
* TIPPECANOE R	OAKDALE	NORTHERN IND PUB SERV CO	P	IN	11000	
* TIPPECANOE R	NORWAY	NORTHERN IND PUB SERV CO	P	IN	7200	
* FAWN RIVER	STAR MILLS	DAVID ZIRKIE	R	IN		
* FAWN R	GREENFIELD MILLS	RINKEL H G & SONS	I	IN	152	
* DIX R	DIX	KENTUCKY UTILITIES CO	P	KY	28257	
* RAZINA	RAZINA	RAZINA	M	LA		
* HOLYOKE CNL(CONN R)	HOLYOKE MILLS	BROWN CO	I	MA	3110	
* CONN CNL(CONN R)	TURNERS FALLS	ESLEECK MANUFACTURING CO	I	MA	450	
* WACHUSETT RESEVOIR	COSGROVE	METRO DISTRICT COMM.	M	MA	4000	
* QUABBIN RESERVOIR(SWIFT R)	OAKDALE	METRO DISTRICT COMM.	M	MA		
* HOUSATONIC R	SOUTH LEE	HURLBUT PAPER CO	I	MA	361	
* CHICOPEE	PUTTS BRIDGE	WESTERN MA ELECTRIC	P	MA		
* N NASHUA R	FITCHBURG	JAMES RIVER MASSACHUSETTS	I	MA	250	1924
* CHICOPEE	RED BRIDGE	WESTERN MA ELECTRIC CO	P	MA		
* CHICOPEE	DWIGHT	WESTERN MA ELECTRIC CO	P	MA		
* CHICOPEE	INDIAN ORCHARD	WESTERN MA ELECTRIC CO	P	MA		
* GOOSE CR,HOUSATONIC R	LAKE MAY	LAKE MAY POWER CO	P	MA	700	
* SAWMILL R	MARTIN MACH CO DAM	MARTIN MACHINE CO	I	MA	75	
* SWIFT R	WINDSOR	METRO DIST COMM	M	MA	1200	
* HOLYOKE CNL(CONN R)	HOLYOKE	MIGLIOZZI,LOUIS P	R	MA	350	
* BLACKSTONE R	FARNUMSVILLE	O DONNELL J J WOOLENS	I	MA	112	
* HOLYOKE CNL(CONN R)	HOLYOKE	PARSONS PAPER CO	I	MA	486	
* MILLERS R	ATHOL	STARRETT L S CO	I	MA	112	
* LITTLE R	COBBLE MOUNTAIN	WESTERN MASS ELECTRIC CO	P	MA	33000	
* CHICOPEE R	MUNGERVILLE	WESTERN MASS ELECTRIC CO	P	MA	3200	
* WESTFIELD R	RUSSELL	WESTFIELD RIVER PAPER CO	I	MA	700	
* BEAVERDAM CR,WICOMICO R	PARKER POND	HINMAN,W H	I	MD	40	
* LITTLE FALLS,GUNPOWDER R	GORES MILL	LINTZ,CLARENCE	I	MD	10	
* DEER CR,SUSUEHANNA R	WILSON MILL DAM	WILLIAMS,ANN T	R	MD	23	
* PISCATAQUIS R	DOVER FOXCROFT	AMERICAN WOOLEN CO	I	ME	854	
* LEWISTON CNL(ANDROSCOGGIN R)	ANDROSCOGGIN	BATES MANUFACTURING CO	I	ME	2566	1924
* DAMARISCOTTA LK	DAMARISCOTTA	DAMARISCOTTA MANUF CO	I	ME	400	1907
* ST CROIX R	GRAND FALLS	GEORGIA-PACIFIC CORP	I	ME	9652	
* WILSON CREEK	WILSON POND	CONSOLIDATED HYDRO	P	ME		
* ST CROIX R	WOODLAND	GEORGIA-PACIFIC CORP	I	ME	9000	
* SACO RIVER	SWAN FALLS	LAWRENCE KEDDY	P	ME		
* KENNEBEC R	GREAT NORTHERN PAPER	GREAT NORTHERN NEKOOSA CO	I	ME	6000	
* SANDY RIVER	SANDY RIVER	TOWN OF MADISON	M	ME		
* WILSON POND,SEBEC R	GREENVILLE	GREENVILLE MFG CO	I	ME	576	
* LITTLE ANDROS	MARCAL PAPER	CONSOLIDATED HYDRO	P	ME		
* PENOBSCOT RIVER	PENOBSCOT	CONSOLIDATED HYDRO	P	ME		
* N BR DEAD R	EUSTIS	KEDDY,LAWRENCE	I	ME	250	
* SEBASTICOOK R	BURNHAM	CONSOLIDATED HYDRO	P	ME		
* LEWISTON CNL(ANDROSCOGGIN R)	LEWISTON(LIBBEY)	LIBBEY W S CO	I	ME	750	

* SANDY R	NORRIDGEWOCK	MADISON,TOWN OF	M	ME	450	
* ANDROSCOGGIN R	WORUMBO(EAST)	MAX MILLER & CO INC	I	ME	900	1920
* ST CROIX R	MILLTOWN	NEW BRUNSWICK ELEC POWER	P	ME	3036	
* ANDROSCOGGIN R	CABOT MFG CO DAM	PEJEPSCOT PAPER/HEARST CO	I	ME	12000	
* GREAT WORKS STR,PENOBSCOT R	GREAT WORKS	PENOBSCOT CHEMICAL	I	ME	4680	
* SACO R	SACO REALTY DAM	SACO REALTY CO	I	ME	790	
* OSSIPEE R	KEZAR FALLS LOWER	SMITH,L E & V P	R	ME	500	
* OSSIPEE R	KEZAR FALLS UPPER	SMITH,L E & V P	R	ME	340	
* SALMON FALLS R	SOUTH BERWICK	SOUTH BERWICK MANUF CO	I	ME	1200	
* MOUSAM R	OLD FALLS	YORK CORP	I	ME	400	1890
* MOUSAM R	NEW DAM (ESTES LAKE)	YORK CORP	I	ME	300	
* AU TRAIN R	AU TRAIN	CLEVELAND CLIFFS IRON CO	I	MI	896	
* ESCANABA R	ESCANABA 2	CLEVELAND CLIFFS IRON CO	I	MI	2000	
* DEAD R	MC CLURE	CLIFFS ELECTRIC SERVICE CO	I	MI	8000	
* DEAD R	HOIST	CLIFFS ELECTRIC SERVICE CO	I	MI	4400	1916
* PAINT R	CRYSTAL FALLS	CRYSTAL FALLS,CITY OF	M	MI	1000	
* ST MARYS R	EDISON(SAULT)	EDISON SAULT ELEC CO	P	MI	43700	
* GRAND R	MIX	GRAND RIVER PWR CO INC	R	MI	202	
* GRAND R	SMITHVILLE	GRAND RIVER PWR CO INC	R	MI	500	
* ST JOSEPH R	BERRIEN SPRINGS	IN AND MI ELEC CO	P	MI	7200	
* MANISTIQUE R	PAPER MILL	MANISTIQUE PULP & PAPER CO	I	MI	4250	
* THORNAPPLE R	IRVING	MIDSTATE SERVICE CO	P	MI	600	
* DOWAGIAC CR,ST JOSEPH R	NILES	NILES, CITY OF	M	MI	460	
* PINE R	ST LOUIS	ST LOUIS, CITY OF	M	MI	400	
* KALAMAZOO R	ALLEGAN CITY DAM	IMPERIAL CARVING CO	I	MI		
* TITTABAWASEE RIVER	EDENVILLE	WOLVERINE POWER CO	P	MI		
* BOARDMAN R	ELK RAPIDS(KEYSTONE)	TRAVERSE CITY,CITY OF	M	MI	750	
* ST JOSEPH RIVER	KINGS MILL	ESTON RAWSON	R	MI		
* S BR ROOT R	LANESBORO HY	LANESBORO, CITY OF	M	MN	477	
* PAW PAW RIVER	PAW PAW	VILLAGE OF PAW PAW	M	MI	250	
* BLACK RIVER	KLERER	WOLVERINE POWER SUPPLY INC	I	MI	1200	
* TITTABAWASEE RIVER	SECORD	WOLVERINE POWER CORP	P	MI		
* TITTABAWASEE RIVER	SMALLWOOD	WOLVERINE POWER CORP	P	MI		
* TITTABAWASEE RIVER	THREE RIVERS	SHEFFIELD CAR CO	I	MI		
* RAISIN RIVER	SHARON MILLS	SHARON MILLS ANTIQUES	P	MI	150	
* FAWN RIVER	FAWN RIVER	JUDY DISNEY	R	MI		
* PRAIRIE CREEK	STERNER	KEITH STERNER	P	MI	12	
* THORNAPPLE	MIDDLEVILLE	MIDSTATE SERVICE CO	I	MI		
* PIGEON RIVER	LANSING CLUB	GOLDEN LOTUS INC	P	MI	150	
* ESCANABA	CATARACT	UPPER PENINSULA POWER CO	P	MI		
* OTTER TAIL R	HOOT LAKE	OTTER TAIL POWER CO	P	MN	1000	1914
* OTTER TAIL R	TAPLIN GORGE	OTTER TAIL POWER CO	P	MN	560	
* OTTER TAIL R	WRIGHT	OTTER TAIL POWER CO	P	MN	400	
* OTTER TAIL R	PISGAH	OTTER TAIL POWER CO	P	MN	520	
* MISSISSIPPI R	BEMIDJI	OTTER TAIL POWER CO	P	MN	740	1905
* OTTER TAIL R	DAYTON HOLLOW	OTTER TAIL POWER CO	P	MN	970	
* REDWOOD R	REDWOOD FALLS	REDWOOD FALLS,CITY OF	M	MN	500	
* ZUMBRO R	ROCHESTER	ROCHESTER, CITY OF	M	MN	2680	
* RED LAKE R	THIEF RIVER FALLS	THIEF R FALLS,CITY OF	M	MN	550	
* FINLEY CREEK	FINLEY CREEK	EMPIRE DISTRICT ELECTRIC	P	MO	70	
* SECOND BROAD R	CLIFFSIDE	CONE MILLS CORP	I	NC	1625	

* DEEP RIVER	RAMSEUR MILL	J & T HYDRO CO	P	NC		
* FIRST BROAD R	STICE SHOALS	DUKE POWER CO	P	NC	600	
* DEEP RIVER	COLTRAIN MILL	COOK INDUSTRIES	I	NC	90	
* GREEN R	TURNER SHOALS	DUKE POWER CO	P	NC	5500	
* GREEN R	TUXEDO (LAKE SUMMIT)	DUKE POWER CO	P	NC	5000	
* MIDDLE FK MUDDY CR	MIDDLE FORK	NEW R LT & PWR CO	P	NC	180	
* LOWER LITTLE R	MILLERSVILLE	RHODES WHITNER MILLS	I	NC	320	
* TAR R	ROCKY MOUNT	ROCKY MOUNT MILLS	I	NC	1600	
* ROCKY R	ROCKY RIVER	WOODY T C	P	NC	160	
* FRENCHMAN CR,REPUBLICAN R	IMPERIAL	IMPERIAL, CITY OF	M	NE	100	
* BIG BLUE R	BLUE SPRINGS 2	NEBRASKA PUB PWR DIST	M	NE	418	
* MINNECHADUZA CR,NIOBRARA R	MINNECHADUZA	NEBRASKA PUB PWR DIST	M	NE	200	
* NIOBRARA R	FORT NIOBRARA	NEBRASKA PUB PWR DIST	M	NE	300	
* PLATTE R	KEARNEY	NEBRASKA PUB PWR DIST	M	NE	1500	
* NIOBRARA R	SPENCER 5/	NEBRASKA PUB PWR DIST	M	NE	2400	
* BIG BLUE R	BARNESTON	NORRIS PPD/NE MUN P P	M	NE	800	
* CEDAR R	SPALDING	SPALDING,CITY OF	M	NE	140	
* BIG BLUE R	WILBER	WILBER HYDRO ELEC PLANT	P	NE	260	
* SUGAR R	CLAREMONT	CLAREMONT PAPER CO INC	I	NH	800	1921
* SUGAR R	CLAREMONT WEST	COY PAPER CO	I	NH	500	
* ELLIS R	GOODRICH FALLS	GOODRICH FALLS HYDRO ELEC CO	P	NH	650	
* NEWFOUND R	IPC NO 1	INTERNATIONAL PACKING CORP	I	NH	168	
* NEWFOUND R	IPC NO 2	INTERNATIONAL PACKING CORP	I	NH	150	
* AMMONOOSUC	ANTHORP	WHITE MOUNTAIN HYDRO	M	NH		
* NUBANUSIT BROOK	FILTRINE MIDDLE	FILTRINE MANUFACTURING CO	I	NH		
* COHAS BK,MERRIMACK R	LOW STATION	MANCHESTER, CITY OF	M	NH	375	
* SALMON FALLS R	ROWE	MILLENIUM PWR INC	R	NH	60	
* CONTOOCOOK R	MILL WHEEL .	MONADNOCK MILLS INC	I	NH	750	
* CONTOOCOOK R	PIERCE STATION	MONADNOCK MILLS INC	I	NH	720	
* N BR CONTOOCOOK R	JACKMAN	PUBLIC SERVICE CO OF NH	P	NH	3200	
* CONNECTICUT R	RYEGATE	RYEGATE PAPER CO	I	NH	1860	
* SALMON FALLS R	MILTON N ROCHESTER	SPAULDING FIBER CO INC	I	NH	312	
* COCHECO R	HATFIELD	WYANDOTTE HYDRO ASSOC	R	NH	235	1983
* COCHECO R	ROCHESTER	WYANDOTTE WORSTED CO	I	NH	100	
* MUSCONETCONG R	WARREN GLEN	RIEGEL PAPER CORP	I	NJ	720	
* MUSCONETCONG R	HUGHESVILLE	RIEGEL PAPER CORP	I	NJ	444	
* CARSON R	LAHONTAN	SIERRA PACIFIC POWER CO	P	NV	2400	
* CARSON R	26 FOOT DROP	SIERRA PACIFIC POWER CO	P	NV	800	
* FISHKILL CR,HUDSON R	BEACON	BRAENDLY DYE WORKS INC	I	NY	100	
* NEVERSINK DIV	NEVERSINK	CENT HUDSON G & EL CORP	P	NY	25000	1953
* WALLKILL R	DASHVILLE	CENT HUDSON G & EL CORP	P	NY	4800	
* WALLKILL R	STURGEON POOL	CENT HUDSON G & EL CORP	P	NY	14400	
* POULTNEY R	CARVERS FALLS	CENTRAL VT PUB SERV CORP	P	NY	1600	1922
* BLACK R	CARTHAGE PAPER MAKER	CLIMAX MANUFACTURING CO	I	NY	800	
* E CANADA CR	DOLGEVILLE	DOLGEVILLE, VILLAGE OF	M	NY	320	
* GENESEE R	KODAK PARK	EASTMAN KODAK CO	I	NY	300	
* SARANAC R	PLATTSBURG 1	GEORGIA-PACIFIC CORP	I	NY	2400	
* SARANAC R	PLATTSBURG 2	GEORGIA-PACIFIC CORP	I	NY	850	
* SARANAC R	TREADWELL MILLS	GEORGIA-PACIFIC CORP ET AL	I	NY	2400	
* SARANAC R	PLATTSBURG	IMPERIAL PAPER CO	I	NY	600	
* ESOPUS CR,HUDSON R	SAUGERTIES	MARTIN CANTINE CO	I	NY	25000	

* WISCOY CREEK	MILLS MILLS #172	ROCHESTER GAS & ELECTRIC	P	NY		
* INDIAN RIVER	CEDAR RIVER	INDIAN LAKE POWER & LIGHT	P	NY		
* ST. REGIS RIVER	ALLENS FALLS	NIAGARA MOHAWK POWER CORP	P	NY		
* ST. REGIS RIVER	PARISHVILLE	NIAGARA MOHAWK POWER CORP	P	NY		
* HUDSON R	SCHUYLERVILLE	NIAGARA MOHAWK POWER CORP	P	NY		
* MONGAUP	RIO	ORANGE & ROCKLAND UTILS	P	NY		
* W CANADA CR	LITTLE FALLS	NIAGARA MOHAWK PWR CORP	P	NY	150	
* SALMON R	LIGHTHOUSE HILL	NIAGARA MOHAWK PWR CORP	P	NY	7500	
* SALMON R	BENNETTS BRIDGE	NIAGARA MOHAWK PWR CORP	P	NY	26750	
* ROMDOUT AQUE (ROMDOUT CR)	GRAHAMSVILLE	ORANGE & ROCKLAND UTILS	P	NY	18000	
* WISCOY CR,GENESEE R	WISCOY 170	ROCHESTER GAS & ELEC CORP	P	NY	1080	
* WISCOY CR,GENESEE R	MT MORRIS 172	ROCHESTER GAS & ELEC CORP	P	NY	222	
* CATTARAUGUS CR, LAKE ERIE	CATTARAUGUS CREEK	SPRINGVILLE,VILLAGE OF	M	NY	600	
* POWDER R	BAKER	BAKER, CITY OF	M	OR	200	
* DITCH CR, HOOD R	REED ROAD	FARMERS IRRIG DIST	M	OR	160	1981
* BREITENBUSH R	BREITENBUSH	KENNEDY, E C	I	OR	10	
* WILLAMETTE R	LAKE OSWEGO	LAKE OSWEGO CORP	R	OR	400	
* WILLAMETTE R	ALBANY	PACIFIC POWER & LIGHT CO	P	OR	800	
* DESCHUTES R	CLINE FALLS	PACIFIC POWER & LIGHT CO	P	OR	1000	
* N SANTIAM R	STAYTON	PACIFIC POWER & LIGHT CO	P	OR	600	
* L BUTTE CR,ROGUE R	EAGLE POINT	PACIFIC POWER & LIGHT CO	P	OR	2813	
* N SANTIAM R	MARION INVESTMENT	SANTIAM WATER CONTROL DIST	M	OR	900	
* SANTIAM	BERLIN	ALEX BERLIN	R	OR		
* PACIFIC OCEAN	TENMILE CREEK	RADTKE, HANS	R	OR		
* MINIKAHDA CREEK	MINIKAHDA	MINIKAHDA POWER COMPANY	P	OR		
* NORTH SANTIAM RIVER	FERY	FERY, FRED	R	OR		
* WILLIAMS, EAST FORK	ROCK CREEK	WEBB, RICHARD G. AND GRACE M.	R	OR		
* MCKENZIE	MCKENZIE	JOHN BIGELOW	R	OR		
* CANYON CREEK	CANYON CREEK	COSGROVE, MICHAEL	R	OR		
* OLLALA CREEK	CROY	CROY, DOUGLAS	R	OR		
* FARMINGTON	RAINBOW	FARMINGTON RIVER PWR CO	M	OR		
* WILLIAMETTE	MIEBERT	HIEBERT, HENRY	R	OR		
* ROGUE	HAMILTON	HAMILTON, JAMES W.	R	OR		
* PLEASANT CREEK	DITCH CREEK	WAGNER, DELMER	R	OR		
* COLUMBIA	DIXON	DIXON, WILLIAM C. AND PAMELA	R	OR		
* SANDY	PIT RUN	PIT RUN INC.	R	OR		
* UMPQUA, S.	DAVIS	DAVIS, WILLIAM C.	R	OR		
* CLACKAMAS	EAGLE	U.S. FISH AND WILDLIFE	F	OR		
* MOLLALA	KARCH	KARCH, HOWARD L.	R	OR		
* SIUSLAW	KNOWLES CREEK	SIMMS, MONTY L. & TAMMIE	R	OR		
* MCKENZIE	POWELL	POWELL, RUDY	R	OR		
* THOMAS CREEK	LINDEMANN	LINDEMANN, FRED A.	R	OR		
* WILLAMETTE	MARYS	ROY, THOMAS	R	OR		
* SLATE CREEK	RAMSEY	WITTICH, JOHN	R	OR		
* WALLOWA	SPRING CREEK	WIGGERS, DUANE	R	OR		
* ALTHOUSE CREEK	SUCKER CREEK	MCCASLIN, DOLIN	R	OR		
* HOOD RIVER	SANDERS	SANDERS, JACK R	R	OR		
* ALTHOUSE CREEK	SUCKER CREEK	BERNARD, RUSSELL	R	OR		
* N UMPQUA RIVER	WINCHESTER	WINCHESTER WTR CONTROL DIST	M	OR	1300	1983
* LOYALSOCK CR,W BR SUSQUEHANN	HILLSGROVE	LEWIS T C COMPANY	I	PA	100	

* LOYALSOCK CR	LOYALSOCK CREEK	F. ALAN SEVER	R	PA		
* MAHANTANGO CREEK	BLACKSTONE MILL	KECK, T.A. & HOLLY S	R	PA		
* BEAVER R	UNION DRAW	REPUBLIC STEEL CORP	I	PA	100	
* RIO TORO NEGRO	TORO NEGRO 2	PUERTO RICO WTR RES AUTH	M	PR	1900	
* RIO JACAQUAS(TORO NEGRO R)	TORO NEGRO 1	PUERTO RICO WTR RES AUTH	M	PR	4320	
* RIO JORDAN,RIO VIVI	CAONILLAS 2	PUERTO RICO WTR RES AUTH	M	PR	3600	
* RIO GUAYANES(VACAS R)	GARZAS 1	PUERTO RICO WTR RES AUTH	M	PR	7200	
* RIO YAUCO(PRIETO R)	YAUCO II	PUERTO RICO WTR RES AUTH	M	PR	9000	
* RIO GUAYANES(VACAS R)	GARZAS 2	PUERTO RICO WTR RES AUTH	M	PR	5040	
* RIO LOCO(PRIETO R)	YAUCO I	PUERTO RICO WTR RES AUTH	M	PR	25000	
* RIO CAONILLAS	CAONILLAS 1	PUERTO RICO WTR RES AUTH	M	PR	18000	
* RIO GRANDE DE ARECIBO	DOS BOCAS	PUERTO RICO WTR RES AUTH	M	PR	10500	
* N BR PAWTUXET R	PROVIDENCE	PROVIDENCE,CITY OF	M	RI	1500	
* ROCKY R	ROCKY RIVER(ABBEVILL	ABBEVILLE,CITY OF	M	SC	2600	
* HORSE CR	GRANITEVILLE	GRANITEVILLE CO	I	SC	450	
* HORSE CR	VAUCLUSE	GRANITEVILLE CO	I	SC	480	
* BLACK CR	HARTSVILLE	SONOCO PRODUCTS CO	I	SC	318	
* S FK PACOLET R	R B SIMMS(SPARTANBUR	SPARTANBURG,CITY OF	M	SC	1000	
* REEDY RIVER	BOYDS MILL	DUKE POWER COMPANY	P	SC		
* LAWSON FK,PACOLET R	WHITNEY	WHITNEY MILLS	I	SC	200	
* SPEARFISH CR,REDWATER CR	SPEARFISH 2	HOMESTAKE MINING CO	I	SD	4000	
* ENGLEWOOD CR,WHITEWOOD CR	ENGLEWOOD	HOMESTAKE MINING CO	I	SD	400	
* SPEARFISH CR,REDWATER CR	SPEARFISH 1	HOMESTAKE MINING CO	I	SD	4000	
* LITTLE WHITE R	WHITE RIVER	RON VINCENT LT & PWR	P	SD	250	
* GUADALUPE R	TP 4	GUADALUPE BLANCO RIV AUTH	M	TX	2400	1932
* GUADALUPE R	H 5	GUADALUPE BLANCO RIV AUTH	M	TX	2400	1931
* GUADALUPE R	H 4	GUADALUPE BLANCO RIV AUTH	M	TX	2400	1931
* GUADALUPE R	NOLTE TP 5	GUADALUPE BLANCO RIV AUTH	M	TX	2400	1927
* GUADALUPE R	ABBOTT TP-3	GUADALUPE BLANCO RIV AUTH	M	TX	2800	1927
* GUADALUPE R	DUNLAP TP 1	GUADALUPE BLANCO RIV AUTH	M	TX	3600	1927
* COLORADO R	L B JOHNSON	LOWER COLORADO R AUTH	M	TX	45000	1948
* COLORADO R	MARBLE FALLS	LOWER COLORADO R AUTH	M	TX	30000	1949
* COLORADO R	MANSFIELD	LOWER COLORADO R AUTH	M	TX	83700	1937
* COLORADO R	BUCHANAN	LOWER COLORADO R AUTH	M	TX	11250	
* COLORADO R	BUCHANAN	LOWER COLORADO R AUTH	M	TX	22500	1935
* COLORADO R	INKS	LOWER COLORADO R AUTH	M	TX	12500	1936
* COLORADO R	AUSTIN	LOWER COLORADO R AUTH	M	TX	13400	1937
* GUADALUPE R	MAX STARCKE (SEGUIN)	SEGUIN, CITY OF	M	TX	250	
* BEAVER R	BEAVER LOWER 2	BEAVER, CITY OF	M	UT	275	
* BOX ELDER CR	BRIGHAM	BRIGHAM CITY CORP	M	UT	1200	
* BOX ELDER CR	BOX ELDER	BRIGHAM CITY CORP	M	UT	500	
* COTTONWOOD CR,SAN PITCH R	EPHRAIM 2(COTTONWOOD	EPHRAIM, CITY OF	M	UT	205	
* PROVO R	HEBER	HEBER LT & PWR CO	M	UT	1750	
* OAK CR,SAN PITCH R	SPRING CITY	SPRING CITY CORP	M	UT	300	
* COTTONWOOD CR,LEEDS CR,VIRGIN	ST GEORGE(GUNLOCK)	ST GEORGE,CITY OF	M	UT	600	
* LITTLE COTTONWOOD CREEK	LOWER PLANT	WHITMORE OXYGEN	I	UT		
* PETEETNEET CR	PAYSON	STRAWBERRY WTR USERS ASSN	M	UT	400	
* SPANISH FORK	SPANISH FORK	STRAWBERRY WTR USERS ASSN	M	UT	3600	
* SPANISH FORK	SPANISH FORK 1	STRAWBERRY WTR USERS ASSN	M	UT	400	
* CITY CR	SALT LAKE CITY	TEMPLE GRANITE QUARRIES	I	UT	500	
* SNAKE CR	SNAKE CREEK	UTAH POWER AND LIGHT CO	P	UT	1180	
* BIG COTTONWOOD CR	GRANITE	UTAH POWER AND LIGHT CO	P	UT	2000	

* VIRGIN R	CEDAR 4 (LA VERKIN	UTAH POWER AND LIGHT CO	P	UT	1250	
* LOGAN R	LOGAN 1	UTAH STATE UNIV	M	UT	400	
* WEBER R	WANSHIP	WEBER BASIN WTR CONS DIST	M	UT	1900	
* WEBER R	GATEWAY	WEBER BASIN WTR CONS DIST	M	UT	4000	
* MEADOW CR,CRAIG CR,JAMES R	MEADOW CREEK	CRAIG BOTETOURT EL COOP	C	VA	300	
* DAN R	PINNACLES-TOWNES DAM	DANVILLE,CITY OF	M	VA	10125	
* OCCOQUAN CR,POTOMAC R	UPPER OCCOQUAN	FAIRFAX COUNTY WATER AUTH	M	VA	1000	
* OCCOQUAN CR,POTOMAC R	LOWER OCCOQUAN	FAIRFAX COUNTY WATER AUTH	M	VA	350	
* WILSON CR,NEW R	MOUTH OF WILSON	FIELDS MANUFACTURING CO	I	VA	250	
* SMITH R	MARTINSVILLE	MARTINSVILLE,CITY OF	M	VA	1300	
* KANAWHA CNL(JAMES R)	BYRD PARK	RICHMOND, CITY OF	M	VA	1125	1923
* WHITE R	BETHEL	BETHEL MILLS INC	I	VT	193	
* LEICESTER R,OTTER CR	SALISBURY	CENTRAL VT PUB SERV CORP	P	VT	1300	1917
* SUCKER BK, NESHOBE R	SILVER LAKE	CENTRAL VT PUB SERV CORP	P	VT	2200	1917
* POULNEY RIVER	CARVERS FALLS	CENTRAL VT PUB SERV CORP	P	VT		
* EAST CR, OTTER CR	PATCH	CENTRAL VT PUB SERV CORP	P	VT	400	
* EAST CR, OTTER CR	GLEN	CENTRAL VT PUB SERV CORP	P	VT	2000	
* EAST CR, OTTER CR	PITTSFORD	CENTRAL VT PUB SERV CORP	P	VT	3600	
* MISSISQOOI R	BAKERS FALLS	CITIZENS UNION 8	I	VT	600	
* MISSISQOOI R	TROY	CITIZENS UTILITIES CO	P	VT	600	
* LAMOILLE R	HARDWICK(WOLCOTT)	HARDWICK, VILLAGE OF	M	VT	1000	
* BOULDER CR,STEHEKIN R	BOCKNER	BOCKNER, HARRY S	I	WA	10	
* STEHEKIN R	STEHEKIN	CHELAN CO PUD 1	M	WA	200	
* RAILROAD CR,CHELAN R	LUCERNE RESORT	MOLDEN VILLAGE CORP	M	WA	25	
* CEDAR RIVER	CEDAR FALLS	SEATTLE CITY LIGHT	M	WA		
* KENNY CR,N FK HOOKSACK R	KENNY CREEK	KENNY CREEK HYDROELEC CO	R	WA	25	
* SAM'S CREEK	KAHN PRODUCTS	LOUIS KAHN	I	WA		
* CALISPELL CR,PEND OREILLE R	CALISPELL	PEND OREILLE CO PUD 1	M	WA	600	
* SPOKANE R	LITTLE FALLS	WASHINGTON WTR PWR CO	P	WA	32000	
* YELLOW R	BARRON	BARRON,CITY OF	M	WI	100	
* FOX R	NEENAH DAM	BERGSTROM PAPER CO	I	WI	400	
* FOX R	APPLETON (LOWER)	CONSOLIDATED PAPERS INC	I	WI	1445	
* EAU CLAIRE R	GORDON	DAHLBERG LT AND PWR CO	P	WI	257	
* TOTAGATIC R	NANCY	DAHLBERG LT AND PWR CO	P	WI	450	
* DUCK CR,TAGATZ CR	FIGOR	FIGOR, D J	I	WI	38	
* LITTLE WOLF	BIG FALLS	BIG FALLS, VILLAGE OF	M	WI	325	
* FOX RIVER	KIMBERLY	KIMTEC PAPER CORP	I	WI	2700	
* PINE RIVER	POY SIPPI	NORTH AMERICAN HYDRO INC	P	WI	75	
* BARABOO R	ISLAND WOOLEN	ISLAND WOOLEN CO	I	WI	412	
* LITTLE WHITE	WHITE RIVER	RON VINCENT LT & PWR	P	WI		
* EMBARRASS RIVER	CAROLINE DAM	GRANT, TOWN OF	M	WI		
* EMBARRASS RIVER	PELLA DAM	PELLA, TOWN OF	M	WI	100	
* KICKAPOO R	LA FARGE	LA FARGE VILLAGE	M	WI	120	
* SOUTH LITTLE WOLF	SCANDINAVIA DAM	SCANDINAVIA, TOWN OF	M	WI	81	
* WHITE RIVER	NESHKORO	NORTH AMERICAN HYDRO INC	P	WI		
* LOWER FOX	DEPERE PLANT	BEEMSTER ELECTRIC COMPANY	P	WI		
* BARABOO R	LA VALLE	LA VALLE EL CO	P	WI	50	
* BARABOO R	OAK STREET	MCARTHUR, GEORGE AND SON	I	WI	156	
* BARABOO R	LINEN MILL	MCARTHUR,GEORGE AND SON	I	WI	100	
* WALLS CR, BLACK R	MERILLAN	MERILLAN, VILLAGE OF	M	WI	100	
* MONTELLO R	HARRISVILLE	MILLER, DUANE J	I	WI	187	
* PINE R	PINE RIVER	MILLER,CLAIR	I	WI	100	

* MONTELLO LK,MONTELLO R	MONTELLO	MONTELLO GRANITE CO	I	WI	379
* MILL CR,WISCONSIN R	MUSCODA	MUSCODA,VILLAGE OF	M	WI	60
* FOUR MILE CR, WISCONSIN R	NEPCO LAKE	NEKOOSA PAPERS INC	I	WI	2920
* WAUTOMA R	WAUTOMA	NORTH AMER HYDRO INC	R	WI	252
* COUDERAY R	RADISSON	NORTH CENTRAL POWER CO	P	WI	393
* IRON R	ORIENTA FALLS	NORTHERN STATES POWER CO	P	WI	800
* ST CROIX R	ST CROIX FALLS	NORTHERN STATES POWER CO	P	WI	23200
* BALSAM R,APPLE R	BALSAM LAKE	NORTHWESTERN WIS ELEC CO	P	WI	68
* CLAM R	CLAM FALLS	NORTHWESTERN WIS ELEC CO	P	WI	112
* FOX R	PARDEEVILLE	PARDEEVILLE ELEC COMM	M	WI	50
* DOCK CR,TAGATZ CR	LAWRENCE	PIONEER PWR & LT CO	P	WI	200
* PRAIRIE R	MERRILL	WARD PAPER COMPANY	I	WI	135
* FOX R	APPLETON	WISCONSIN ELEC PWR CO	P	WI	1940
* WISCONSIN R	KILBOURN	WISCONSIN POWER & LIGHT CO	P	WI	8200
* WISCONSIN R	PRAIRIE DU SAC	WISCONSIN POWER & LIGHT CO	P	WI	28440

OWNER CLASS CODE:

C - COOPERATIVE
I - INDUSTRIAL
M - MUNICIPAL
P - PRIVATE UTILITY
R - PRIVATE NON-UTILITY
F - FEDERAL

Question 1a: Which of these projects were constructed before August 26, 1935, on a non-navigable river and have not since been improved?

Answer: The identification of all projects that were constructed on a non-navigable river before August 26, 1935, and that have not since been improved (and therefore are not required to be licensed), cannot be made until all the projects are reviewed and inspected. Of the projects listed in TABLE 1, the following projects have been identified, in UL dockets, as meeting the above criteria.

PROJECT NUMBER	PROJECT NAME	STATE
UL88-13	GLEN	VT
UL88-14	PATCH	VT
UL88-15	PITTSFORD	VT
UL88-18	DASHVILLE	NY
UL88-20	BERRIEN SPRINGS	MI
UL88-22	STURGEON POOL	NY
UL88-26	HARTENSTENE DAM	MI
UL88-28	LEIGHS MILL	ME
UL88-38	LEDBETTER LAKE	NC
UL89-1	GRAND FALLS	ME
UL89-2	WOODLAND	ME
UL89-6	COBBLE MOUNTAIN	MA
UL89-18	TURNER SHOALS	NC
UL89-19	TUXEDO	NC
UL89-20	DANIEL GREEN	NY

Question 1b: Which of these projects are non-jurisdictional?

Answer: A determination of whether a project is required to be licensed cannot be made until the project is investigated. Of the projects listed in TABLE 1, the following projects were reviewed and inspected in UL dockets, and have been found to not require licensing.

PROJECT NUMBER	PROJECT NAME	STATE
UL87-5	PARDEEVILLE	WI
UL87-25	APPLETON (LOWER)	WI
UL88-6	PILOT KNOB	CA
UL88-7	DROP 2	CA
UL88-8	DROP 3	CA
UL88-9	DROP 4	CA
UL88-10	DROP 5	CA
UL88-11	DROP 1	CA
UL88-13	GLEN	VT
UL88-14	PATCH	VT
UL88-15	PITTSFORD	VT
UL88-16	SALISBURY	VT
UL88-18	DASHVILLE	NY
UL88-20	BERRIEN SPRINGS	MI
UL88-22	STURGEON POOL	NY
UL88-24	MARTINSVILLE	VA
UL88-26	HARTENSTENE DAM	MI
UL88-27	WILSON PONDS	ME
UL88-28	LEIGHS MILL	ME
UL88-38	LEDBETTER LAKE	NC
UL89-1	GRAND FALLS	ME
UL89-2	WOODLAND	ME
UL89-6	COBBLE MOUNTAIN	MA
UL89-13	EDISON SAULT	MI
UL89-18	TURNER SHOALS	NC
UL89-19	TUXEDO	NC
UL89-20	DANIEL GREEN	NY

Question 1c: Which of these projects are jurisdictionally undetermined?

Answer: TABLE 2 lists the projects for which a jurisdictional determination has not been made.

TABLE 2

UNLICENSED AND OPERATING HYDROELECTRIC PROJECTS WHERE NO JURISDICTIONAL DETERMINATION HAS BEEN MADE

06/09/1989

* STREAM NAME	PLANT NAME	OWNER	CLASS	STATE	CAPACITY KW	CONST YEAR
***						
* KASNYKU BAY,CHATHAM STRAIT	HIDDEN FALLS	ALASKA DEPT FISH & GAME	M	AK	200	1979
* GOLD CR,GASTINEAU INLET	GOLD CREEK	ALASKA ELEC LT & PWR CO	P	AK	1600	
* WARM SPRINGS BAY	BAHOVEC	BAHOVEC,FRED	I	AK	3	
* SKECKLEY CR	SKECKLEY	BUCHAN & HEINEN PKG CO	I	AK	28	
* BARANOF R,WARM SPRING BAY	BARANOF WARM SPRING	GRUENING,CLARK S	R	AK	14	
* PURPLE LAKE	PURPLE LAKE	METLAKATLA PWR AND LIGHT	M	AK	3900	
* ONE MILE CR	ONE MILE	NEW ENGLAND FISH CO	I	AK	8	
* KODIAK ISLAND	PARKS	PARKS CANNING CO	I	AK	8	
* BARANOF R	SONNENBURG	SONNENBURG, WALLACE	I	AK	3	
* S CONSOL CNL(SALT R)	S CONSOLIDATED	SALT R PROJ AG IMP P DIST	M	AZ	1400	1980
* SALT R	HORSE MESA	SALT R PROJ AG IMP P DIST	M	AZ	99900	1969
* CROSS CUT CNL(SALT R)	CROSS CUT	SALT R PROJ AG IMP P DIST	M	AZ	3000	
* SALT R	ROOSEVELT	SALT R PROJ AG IMP P DIST	M	AZ	36000	
* SALT R	HORSE MESA	SALT R PROJ AG IMP P DIST	M	AZ	29700	
* SALT R	MORMON FLAT	SALT R PROJ AG IMP P DIST	M	AZ	48600	
* SALT R	MORMON FLAT	SALT R PROJ AG IMP P DIST	M	AZ	9200	
* SALT R	STEWART MOUNTAIN	SALT R PROJ AG IMP P DIST	M	AZ	10400	
* TUOLUMNE R	R KIRKWOOD	HETCH HETCHY WTR & PWR	M	CA	104022	
* HETCH HETCHY AQUEDUCT	MOCCASIN CREEK	HETCH HETCHY WTR & PWR	M	CA	90000	
* CHERRY CR, TUOLUMNE R	D R HOLM	HETCH HETCHY WTR & PWR	M	CA	135000	
* E HIGHLINE CNL(COLO.R)	EAST HIGHLINE	IMPERIAL IRRIG DIST	M	CA	2415	
* W SIDE M CNL(COL.R)	TURNIP	IMPERIAL IRRIG DIST	M	CA	420	
* CENTER M CNL(COLO.R)	DOUBLE WEIR	IMPERIAL IRRIG DIST	M	CA	560	
* LA AQUE (SANTA CLARA R)	SAN FERNANDO	LOS ANGELES DEPT W AND P	M	CA	5600	
* LA AQUE (SANTA CLARA R)	FOOTHILL	LOS ANGELES DEPT W AND P	M	CA	11000	
* LA AQUE (SANTA CLARA R)	S FRANCISQUITO 2	LOS ANGELES DEPT W AND P	M	CA	42000	
* FRANKLIN CANYON, LOS ANGELES	FRANKLIN CANYON	LOS ANGELES DEPT W AND P	M	CA	2000	
* LA AQUE (SANTA CLARA R)	S FRANCISQUITO 1	LOS ANGELES DEPT W AND P	M	CA	64375	
* DIVISION CR, OWENS R	DIVISION CREEK	LOS ANGELES DEPT W AND P	M	CA	600	
* COTTONWOOD CR,OWENS R	COTTONWOOD 3	LOS ANGELES DEPT W AND P	M	CA	1500	
* OWENS R	PLEASANT VALLEY	LOS ANGELES DEPT W AND P	M	CA	3200	
* OWENS R	CONTROL GORGE	LOS ANGELES DEPT W AND P	M	CA	37500	
* OWENS R	MIDDLE GORGE	LOS ANGELES DEPT W AND P	M	CA	37500	
* OWENS R	UPPER GORGE	LOS ANGELES DEPT W AND P	M	CA	37500	
* LA AQUE (SANTA CLARA R)	HAIWEE	LOS ANGELES DEPT W AND P	M	CA	5600	
* BIG PINE CR, OWENS R	BIG PINE 3	LOS ANGELES,CITY OF	M	CA	3200	
* MIOCENE CNL(WBR NFK FEATHER R	COAL CANYON	PACIFIC GAS & ELECTRIC CO	P	CA	1000	
* W BR N FK FEATHER R	LIME SADDLE	PACIFIC GAS & ELECTRIC CO	P	CA	2000	
* LYTLE CR, SANTA ANA R	FONTANA	SOUTHERN CALIF EDISON CO	P	CA	2950	
* MILL CR, SANTA ANA R	MILL CREEK 1	SOUTHERN CALIF EDISON CO	P	CA	800	
* SAN ANTONIO CR, WALNUT CR	ONTARIO 2	SOUTHERN CALIF EDISON CO	P	CA	320	
* SAN ANTONIO CR, WALNUT CR	SIERRA	SOUTHERN CALIF EDISON CO	P	CA	480	

* SAN ANTONIO CR, WALNUT CR	ONTARIO 1	SOUTHERN CALIF EDISON CO	P	CA	600	
* TUOLUMNE R	LA GRANGE	TURLOCK IRRIG DIST	M	CA	4000	1909
* SAN JUAN R	PAGOSA SPRINGS	LA PLATA ELEC ASSN INC	C	CO	200	
* ST VRAIN CR,BOULDER CR	LONGMONT	LONGMONT, CITY OF	M	CO	611	
* COLORADO R	SHOSHONE	PUBLIC SERVICE CO OF CO	P	CO	14400	
* COLORADO R	GRND VALLEY(PALISADES	PUBLIC SERVICE CO OF CO	P	CO	3000	
* BIG SQUAW CR,RIO GRANDE	SQUAW CREEK	TREG., ERNEST E	I	CO	8	1948
* YANTIC R	GILMAN	BOZRAH LIGHT AND POWER CO	P	CT	250	1943
* BANTAM R	LITCHFIELD(BANTAM)	CONN LIGHT & POWER CO	P	CT	320	
* WINDSOR LOCKS CNL(CONN R)	WINDSOR LKS(ENFIELD	DEXTER C H AND SONS INC	I	CT	500	
* FARMINGTON R	RAINBOW	FARMINGTON RIVER POWER CO	P	CT	8000	
* SHETUCKET R	OCCUM	NORWICH, CITY OF	M	CT	800	
* ESTATOAH CR,TENNESSEE R	ESTATOAH	GEORGIA POWER CO	P	GA	240	
* SOGUE R	HABERSHAM	HABERSHAM MILLS	I	GA	1660	
* SOUTH R	SNAPPING SHOALS	THOMAS INDUSTRIES	I	GA	200	
* ETOWAH R	CARTERSVILLE	THOMPSON WEINMAN CO	I	GA	625	
* WAILUKU R	WAIAU	HAWAII ELECTRIC LIGHT CO	P	HI	1100	
* WAILUKU R	PUUEO	HAWAII ELECTRIC LIGHT CO	P	HI	2250	
* WAILOA DITCH	KAHEKA	HAWAIIAN COM & SUG CO	I	HI	4002	
* WAILOA DITCH	PAIA	HAWAIIAN COM & SUG CO	I	HI	800	
* LOWER HAMAKUA DITCH	HONOKAA	HONOKAA SUGAR CO	I	HI	800	
* KOHOANA R	WAIAWA	KEKAHA SUGAR CO LTD	I	HI	500	
* WAIMEA R	WAIMEA	KEKAHA SUGAR CO LTD	I	HI	1000	
* KOHALA DITCH	HAWI	KOHALA SUGAR CO	I	HI	350	
* S FK WAILUA R	LOWER LIHUE	LIHUE PLANTATION CO	I	HI	800	
* WAIHAI R,S FK WAILUA R	UPPER LIHUE	LIHUE PLANTATION CO	I	HI	500	
* KALAHEO R	KALAHEO	MCBRYDE SUGAR CO LTD	I	HI	1000	
* MAKAWELI R	HYDRO (KAUMAKANI)	OLOKELE SUGAR CO LTD	I	HI	500	
* WAINIHA R	WAINIHA	PIONEER MILL CO LTD	I	HI	3600	
* KAUAULA STREAM	KAUAULA	PIONEER MILL CO LTD	I	HI	450	
* MAQOOKETA R	MAQOOKETA	IOWA ELEC LT AND PWR CO	P	IA	1200	
* MISSISSIPPI R	KEOKUK L&D 19	UNION ELECTRIC CO	P	IA	124800	1911
* CEDAR R	WAVERLY (EAST HYDRO)	WAVERLY, CITY OF	M	IA	495	
* BEAR CR,S FK PAYETTE R	CLIFFORD ROSENBALM	ELLIS,WAYNE R	I	ID	8	
* BLUE MOON CR,SULPHUR CR,M FK	BLUE MOON CR SALMON	HORNBACK,MARVIN E	I	ID	30	
* SNAKE R(OFFSTREAM)	CLEAR LAKE	IDAHO POWER CO	P	ID	2500	
* SNAKE R	THOUSAND SPRINGS	IDAHO POWER CO	P	ID	8800	
* SODA CR,BEAR R	SODA SPRINGS	SODA SPRINGS, CITY OF	M	ID	100	
* SODA CR,BEAR R	SODA SPRINGS 1	SODA SPRINGS, CITY OF	M	ID	200	
* SODA CR,BEAR R	SODA SPRINGS 4	SODA SPRINGS, CITY OF	M	ID	300	
* ST JOSEPH R	ST JOE DAM	FT WAYNE, CITY OF	M	IN	100	
* FAWN R	GREENFIELD MILLS	RINKEL H G & SONS	I	IN	152	
* HOLYOKE CNL(CONN R)	HOLYOKE MILLS	BROWN CO	I	MA	3110	
* CONN CNL(CONN R)	TURNERS FALLS	ESLEECK MANUFACTURING CO	I	MA	450	
* HOOSATONIC R	SOUTH LEE	HURLBUT PAPER CO	I	MA	361	
* N NASHUA R	FITCHBURG	JAMES RIVER MASSACHUSETTS	I	MA	250	1924
* GOOSE CR,HOOSATONIC R	LAKE MAY	LAKE MAY POWER CO	P	MA	700	
* SAWMILL R	MARTIN MACH CO DAM	MARTIN MACHINE CO	I	MA	75	
* SWIFT R	WINDSOR	METRO DIST COMM	M	MA	1200	
* HOLYOKE CNL(CONN R)	HOLYOKE	MIGLIOZZI,LOUIS P	R	MA	350	
* BLACKSTONE R	FARNUMSVILLE	O DONNELL J J WOOLENS	I	MA	112	
* HOLYOKE CNL(CONN R)	HOLYOKE	PARSONS PAPER CO	I	MA	486	

* MILLERS R	ATHOL	STARRETT L S CO	I	MA	112	
* CHICOPEE R	MUNGERVILLE	WESTERN MASS ELECTRIC CO	P	MA	3200	
* WESTFIELD R	RUSSELL	WESTFIELD RIVER PAPER CO	I	MA	700	
* BEAVERDAM CR,WICOMICO R	PARKER POND	HINMAN,W H	I	MD	40	
* LITTLE FALLS,GUNPOWDER R	GORES MILL	LINTZ,CLARENCE	I	MD	10	
* DEER CR,SUSQUEHANNA R	WILSON MILL DAM	WILLIAMS,ANN T	R	MD	23	
* PISCATAQUIS R	DOVER FOXCROFT	AMERICAN WOOLEN CO	I	ME	854	
* LEWISTON CNL(ANDROSCOGGIN R)	ANDROSCOGGIN	BATES MANUFACTURING CO	I	ME	2566	1924
* DAMARISCOTTA LK	DAMARISCOTTA	DAMARISCOTTA MANUF CO	I	ME	400	1907
* KENNEBEC R	GREAT NORTHERN PAPER	GREAT NORTHERN WEYOOSA CO	I	ME	6000	
* WILSON POND,SEBEC R	GREENVILLE	GREENVILLE MFG CO	I	ME	576	
* LEWISTON CNL(ANDROSCOGGIN R)	LEWISTON(LIBBEY)	LIBBEY W S CO	I	ME	750	
* SANDY R	NORRIDGEWOCK	MADISON,TOWN OF	M	ME	450	
* ANDROSCOGGIN R	WORUMBO(EAST)	MAX MILLER & CO INC	I	ME	900	1920
* ST CROIX R	MILLTOWN	NEW BRUNSWICK ELEC POWER	P	ME	3036	
* ANDROSCOGGIN R	CABOT MFG CO DAM	PEJEPSCOT PAPER/HEARST CO	I	ME	12000	
* GREAT WORKS STR,PENOBSCOT R	GREAT WORKS	PENOBSCOT CHEMICAL	I	ME	4680	
* SACO R	SACO REALTY DAM	SACO REALTY CO	I	ME	790	
* ESCANABA R	ESCANABA 2	CLEVELAND CLIFFS IRON CO	I	MI	2000	
* DOWAGIAC CR,ST JOSEPH R	NILES	NILES, CITY OF	M	MI	460	
* PINE R	ST LOUIS	ST LOUIS, CITY OF	M	MI	400	
* BOARDMAN R	ELK RAPIDS(KEYSTONE)	TRAVERSE CITY,CITY OF	M	MI	750	
* OTTER TAIL R	TAPLIN GORGE	OTTER TAIL POWER CO	P	MN	560	
* MISSISSIPPI R	BEMIDJI	OTTER TAIL POWER CO	P	MN	740	1905
* REDWOOD R	REDWOOD FALLS	REDWOOD FALLS,CITY OF	M	MN	500	
* ZUMBRO R	ROCHESTER	ROCHESTER, CITY OF	M	MN	2680	
* RED LAKE R	THIEF RIVER FALLS	THIEF R FALLS,CITY OF	M	MN	550	
* SECOND BROAD R	CLIFFSIDE	CONE MILLS CORP	I	NC	1625	
* FIRST BROAD R	STICE SHOALS	DUKE POWER CO	P	NC	600	
* MIDDLE FK MUDDY CR	MIDDLE FORK	NEW R LT & PWR CO	P	NC	180	
* LOWER LITTLE R	MILLERSVILLE	RHODES WHITNER MILLS	I	NC	320	
* TAR R	ROCKY MOUNT	ROCKY MOUNT MILLS	I	NC	1600	
* ROCKY R	ROCKY RIVER	WOODY T C	P	NC	160	
* FRENCHMAN CR,REPUBLICAN R	IMPERIAL	IMPERIAL, CITY OF	M	NE	100	
* BIG BLUE R	BLUE SPRINGS 2	NEBRASKA PUB PWR DIST	M	NE	418	
* MINNECHADUZA CR,NIOBRARA R	MINNECHADUZA	NEBRASKA PUB PWR DIST	M	NE	200	
* NIOBRARA R	FORT NIOBRARA	NEBRASKA PUB PWR DIST	M	NE	300	
* PLATTE R	KEARNEY	NEBRASKA PUB PWR DIST	M	NE	1500	
* NIOBRARA R	SPENCER 5/	NEBRASKA PUB PWR DIST	M	NE	2400	
* BIG BLUE R	BARNESTON	NORRIS PPD/NE MUN P P	M	NE	800	
* CEDAR R	SPALDING	SPALDING,CITY OF	M	NE	140	
* BIG BLUE R	WILBER	WILBER HYDRO ELEC PLANT	P	NE	260	
* SUGAR R	CLAREMONT WEST	COY PAPER CO	I	NH	500	
* ELLIS R	GOODRICH FALLS	GOODRICH FALLS HYDRO ELEC CO	P	NH	650	
* NEWFOUND R	IPC NO 1	INTERNATIONAL PACKING CORP	I	NH	168	
* NEWFOUND R	IPC NO 2	INTERNATIONAL PACKING CORP	I	NH	150	
* COHAS BK,MERRIMACK R	LOW STATION	MANCHESTER,CITY OF	M	NH	375	
* SALMON FALLS R	ROWE	MILLENIUM PWR INC	R	NH	60	
* CONTOOCOOK R	MILL WHEEL	MONADNOCK MILLS INC	I	NH	750	
* CONTOOCOOK R	PIERCE STATION	MONADNOCK MILLS INC	I	NH	720	
* CONNECTICUT R	RYEGATE	RYEGATE PAPER CO	I	NH	1860	
* SALMON FALLS R	MILTON N ROCHESTER	SPAULDING FIBER CO INC	I	NH	312	

* COCHECO R	HATFIELD	WYANDOTTE HYDRO ASSOC	R	NH	235	1983
* COCHECO R	ROCHESTER	WYANDOTTE WORSTED CO	I	NH	100	
* MUSCONETCONG R	WARREN GLEN	RIEGEL PAPER CORP	I	NJ	720	
* MUSCONETCONG R	HUGHESVILLE	RIEGEL PAPER CORP	I	NJ	444	
* CARSON R	LAHONTAN	SIERRA PACIFIC POWER CO	P	NV	2400	
* CARSON R	26 FOOT DROP	SIERRA PACIFIC POWER CO	P	NV	800	
* FISHKILL CR,HUDSON R	BEACON	BRAENDLY DYE WORKS INC	I	NY	100	
* GENESEE R	KODAK PARK	EASTMAN KODAK CO	I	NY	300	
* SARANAC R	PLATTSBURG 1	GEORGIA-PACIFIC CORP	I	NY	2400	
* SARANAC R	PLATTSBURG 2	GEORGIA-PACIFIC CORP	I	NY	850	
* SARANAC R	TREADWELL MILLS	GEORGIA-PACIFIC CORP ET AL	I	NY	2400	
* SARANAC R	PLATTSBURG	IMPERIAL PAPER CO	I	NY	600	
* ESOPUS CR,HUDSON R	SAUGERTIES	MARTIN CANTINE CO	I	NY	25000	
* W CANADA CR	LITTLE FALLS	NIAGARA MOHAWK PWR CORP	P	NY	150	
* RONDOUT AQUE (RONDOUT CR)	GRAHAMSVILLE	ORANGE & ROCKLAND UTILS	P	NY	18000	
* WISCOY CR,GENESEE R	WISCOY 170	ROCHESTER GAS & ELEC CORP	P	NY	1080	
* WISCOY CR,GENESEE R	MT MORRIS 172	ROCHESTER GAS & ELEC CORP	P	NY	222	
* CATTARAUGUS CR,LAKE ERIE	CATTARAUGUS CREEK	SPRINGVILLE,VILLAGE OF	M	NY	600	
* POWDER R	BAKER	BAKER, CITY OF	M	OR	200	
* DITCH CR, HOOD R	REED ROAD	FARMERS IRRIG DIST	M	OR	160	1981
* BREITENBUSH R	BREITENBUSH	KENNEDY, E C	I	OR	10	
* WILLAMETTE R	LAKE OSWEGO	LAKE OSWEGO CORP	R	OR	400	
* WILLAMETTE R	ALBANY	PACIFIC POWER & LIGHT CO	P	OR	800	
* DESCHUTES R	CLINE FALLS	PACIFIC POWER & LIGHT CO	P	OR	1000	
* N SANTIAM R	STAYTON	PACIFIC POWER & LIGHT CO	P	OR	600	
* L BUTTE CR,ROGUE R	EAGLE POINT	PACIFIC POWER & LIGHT CO	P	OR	2813	
* N SANTIAM R	MARION INVESTMENT	SANTIAM WATER CONTROL DIST	M	OR	900	
* N UMPQUA R	WINCHESTER	WINCHESTER WTR CONTROL DIST	M	OR	1300	1983
* LOYALSOCK CR,W BR SUSQUEHANN	HILLSGROVE	LEWIS T C COMPANY	I	PA	100	
* BEAVER R	UNION DRAW	REPUBLIC STEEL CORP	I	PA	100	
* RIO TORO NEGRO	TORO NEGRO 2	PUERTO RICO WTR RES AUTH	M	PR	1900	
* RIO JACAQUAS(TORO NEGRO R)	TORO NEGRO 1	PUERTO RICO WTR RES AUTH	M	PR	4320	
* RIO JORDAN,RIO VIVI	CAONILLAS 2	PUERTO RICO WTR RES AUTH	M	PR	3600	
* RIO GUAYANES(VACAS R)	GARZAS 1	PUERTO RICO WTR RES AUTH	M	PR	7200	
* RIO YAUCO(PRIETO R)	YAUCO II	PUERTO RICO WTR RES AUTH	M	PR	9000	
* RIO GUAYANES(VACAS R)	GARZAS 2	PUERTO RICO WTR RES AUTH	M	PR	5040	
* RIO LOCO(PRIETO R)	YAUCO I	PUERTO RICO WTR RES AUTH	M	PR	25000	
* RIO CAONILLAS	CAONILLAS 1	PUERTO RICO WTR RES AUTH	M	PR	18000	
* RIO GRANDE DE ARECIBO	DOS BOCAS	PUERTO RICO WTR RES AUTH	M	PR	10500	
* N BR PAWTUXET R	PROVIDENCE	PROVIDENCE,CITY OF	M	RI	1500	
* HORSE CR	GRANITEVILLE	GRANITEVILLE CO	I	SC	450	
* HORSE CR	VAUCLUSE	GRANITEVILLE CO	I	SC	480	
* BLACK CR	HARTSVILLE	SONOCO PRODUCTS CO	I	SC	318	
* S FK PACOLET R	R B SIMMS(SPARTANBUR	SPARTANBURG,CITY OF	M	SC	1000	
* LAWSON FK,PACOLET R	WHITNEY	WHITNEY MILLS	I	SC	200	
* SPEARFISH CR,REDWATER CR	SPEARFISH 2	HOMESTAKE MINING CO	I	SD	4000	
* ENGLEWOOD CR,WHITEWOOD CR	ENGLEWOOD	HOMESTAKE MINING CO	I	SD	400	
* SPEARFISH CR,REDWATER CR	SPEARFISH 1	HOMESTAKE MINING CO	I	SD	4000	
* LITTLE WHITE R	WHITE RIVER	RON VINCENT LT & PWR	P	SD	250	
* GUADALUPE R	TP 4	GUADALUPE BLANCO RIV AUTH	M	TX	2400	1932
* GUADALUPE R	ABBOTT TP-3	GUADALUPE BLANCO RIV AUTH	M	TX	2800	1927
* BEAVER R	BEAVER LOWER 2	BEAVER, CITY OF	M	UT	275	

* BOX ELDER CR	BRIGHAM	BRIGHAM CITY CORP	M	UT	1200	
* BOX ELDER CR	BOX ELDER	BRIGHAM CITY CORP	M	UT	500	
* COTTONWOOD CR,SAN PITCH R	EPHRAIM 2(COTTONWOOD	EPHRAIM, CITY OF	M	UT	205	
* OAK CR,SAN PITCH R	SPRING CITY	SPRING CITY CORP	M	UT	300	
* COTTONWOOD CR,LEEDS CR,VIRGIN	ST GEORGE(GUNLOCK)	ST GEORGE,CITY OF	M	UT	600	
* PETEETNEET CR	PAYSON	STRAWBERRY WTR USERS ASSN	M	UT	400	
* SPANISH FORK	SPANISH FORK	STRAWBERRY WTR USERS ASSN	M	UT	3600	
* SPANISH FORK	SPANISH FORK 1	STRAWBERRY WTR USERS ASSN	M	UT	400	
* CITY CR	SALT LAKE CITY	TEMPLE GRANITE QUARRIES	I	UT	500	
* SNAKE CR	SNAKE CREEK	UTAH POWER AND LIGHT CO	P	UT	1180	
* VIRGIN R	CEDAR 4 (LA VERKIN	UTAH POWER AND LIGHT CO	P	UT	1250	
* LOGAN R	LOGAN 1	UTAH STATE UNIV	M	UT	400	
* WEBER R	WANSHIP	WEBER BASIN WTR CONS DIST	M	UT	1900	
* WEBER R	GATEWAY	WEBER BASIN WTR CONS DIST	M	UT	4000	
* MEADOW CR,CRAIG CR,JAMES R	MEADOW CREEK	CRAIG BOTETOURT EL COOP	C	VA	300	
* WILSON CR,NEW R	MOUTH OF WILSON	FIELDS MANUFACTURING CO	I	VA	250	
* KANAWHA CNL(JAMES R)	BYRD PARK	RICHMOND, CITY OF	M	VA	1125	1923
* WHITE R	BETHEL	BETHEL MILLS INC	I	VT	193	
* MISSISQUOI R	BAKERS FALLS	CITIZENS UNION 8	I	VT	600	
* MISSISQUOI R	TROY	CITIZENS UTILITIES CO	P	VT	600	
* LAMOILLE R	HARDWICK(WOLCOTT)	HARDWICK, VILLAGE OF	M	VT	1000	
* BOULDER CR,STEHEKIN R	BUCKNER	BUCKNER, HARRY S	I	WA	10	
* STEHEKIN R	STEHEKIN	CHELAN CO PUD 1	M	WA	200	
* RAILROAD CR,CHELAN R	LUCERNE RESORT	HOLDEN VILLAGE CORP	M	WA	25	
* KENNY CR,N FK NOOKSACK R	KENNY CREEK	KENNY CREEK HYDROELEC CO	R	WA	25	
* CALISPELL CR,PEND OREILLE R	CALISPELL	PEND OREILLE CO PUD 1	M	WA	600	
* SPOKANE R	LITTLE FALLS	WASHINGTON WTR PWR CO	P	WA	32000	
* YELLOW R	BARRON	BARRON,CITY OF	M	WI	100	
* FOX R	WEENAH DAM	BERGSTROM PAPER CO	I	WI	400	
* EAU CLAIRE R	GORDON	DAHLBERG LT AND PWR CO	P	WI	257	
* TOTAGATIC R	NANCY	DAHLBERG LT AND PWR CO	P	WI	450	
* DUCK CR,TAGATZ CR	FIGOR	FIGOR, D J	I	WI	38	
* BARABOO R	ISLAND WOOLEN	ISLAND WOOLEN CO	I	WI	412	
* BARABOO R	LA VALLE	LA VALLE EL CO	P	WI	50	
* BARABOO R	OAK STREET	MCARTHUR, GEORGE AND SON	I	WI	156	
* BARABOO R	LINEN MILL	MCARTHUR,GEORGE AND SON	I	WI	100	
* HALLS CR, BLACK R	MERILLAN	MERILLAN, VILLAGE OF	M	WI	100	
* MONTELLO R	HARRISVILLE	MILLER, DUANE J	I	WI	187	
* PINE R	PINE RIVER	MILLER,CLAIR	I	WI	100	
* MONTELLO LK,MONTELLO R	MONTELLO	MONTELLO GRANITE CO	I	WI	379	
* MILL CR,WISCONSIN R	MUSCODA	MUSCODA,VILLAGE OF	M	WI	60	
* FOUR MILE CR, WISCONSIN R	WEPCO LAKE	WEKOOSA PAPERS INC	I	WI	2920	
* WAUTOMA R	WAUTOMA	NORTH AMER HYDRO INC	R	WI	252	
* COUDERAY R	RADISSON	NORTH CENTRAL POWER CC	P	WI	393	
* IRON R	ORIENTA FALLS	NORTHERN STATES POWER CO	P	WI	800	
* ST CROIX R	ST CROIX FALLS	NORTHERN STATES POWER CO	P	WI	23200	
* BALSAM R,APPLE R	BALSAM LAKE	NORTHWESTERN WIS ELEC CO	P	WI	68	
* CLAM R	CLAM FALLS	NORTHWESTERN WIS ELEC CO	P	WI	112	
* DUCK CR,TAGATZ CR	LAWRENCE	PIONEER PWR & LT CO	P	WI	200	
* PRAIRIE R	MERRILL	WARD PAPER COMPANY	I	WI	135	
* FOX R	APPLETON	WISCONSIN ELEC PWR CO	P	WI	1940	
* WISCONSIN R	KILBOURN	WISCONSIN POWER & LIGHT CO	P	WI	8200	

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* WISCONSIN R	PRAIRIE DU SAC	WISCONSIN POWER & LIGHT CO	P	WI	28440

OWNER CLASS CODE:

C - COOPERATIVE
I - INDUSTRIAL
M - MUNICIPAL
P - PRIVATE UTILITY
R - PRIVATE NON-UTILITY
F - FEDERAL

Question 1d: Which of these projects are now under investigation or review as to jurisdiction and the requirement to be licensed?

Answer: In the interest of public safety and environmental protection, the Commission staff has focused its review on unlicensed projects with a high or significant hazard classification, and on the projects where we receive environmental complaints. TABLE 3 lists projects now under investigation.

TABLE 3

PROJECTS NOW UNDER INVESTIGATION OR REVIEW AS TO REQUIREMENT FOR LICENSING

Project Name	State	Owner
Albany	OR	Pacific Power & Light
Austin	TX	Lower Colorado River Authority
Buchanan	TX	Lower Colorado River Authority
Bakers Falls	VT	Citizens Utilities Company
Big Falls	WI	Big Falls, Village of
Boyds Mill	SC	Duke Power Company
Burnham	ME	Consolidated Hydro
Caroline Dam	MI	Roy Kleisch
Cartersville	GA	ECC America, Inc.
Claremont West	NH	Coy Paper Company
Damariscotta Mills	ME	Consolidated Hydro
DePere Plant	WI	Beemster Electric Co.
Diamond	OR	Port of Hood River
Estatoah	GA	Georgia Power Company
Granite Shoals	TX	Lower Colorado River Authority
Graniteville	SC	Graniteville Corporation
Hughsville	NJ	James River Corp./Riegel Division
Inks	TX	Lower Colorado River Authority
Lakehurst	IA	I E Industries
Longmont	CO	Longmont, City of (CO)
Mansfield	TX	Lower Colorado River Authority

Project Name	State	Owner
Marble Falls	TX	Lower Colorado River Authority
Marcal Paper	ME	Consolidated Hydro
Mills Mills Sta 172	NY	Rochester Gas & Electric Corp.
Moline Power Dam	IA	Iowa Illinois Gas & Electric Co.
Mouth of Wilson	VA	Fields Manufacturing
Nepco L/Four Mile Ck	WI	Nekooska Papers, Inc.
New Castle	VA	Craig-Botetourt Corporation
Pella Dam	MI	Roy Kleisch
Pennessewasee	ME	Consolidated Hydro
Ramseur Mill	NC	J & T Hydro Company
Sandy River	ME	Madison, Town of
Scandinavia Dam	MI	Roy Kleisch
Simms, R.B.	SC	Spartanburg, City of
Star Mill	IN	David Zinkie
Stice Shoals	NC	Duke Power Company
Swan Falls	ME	Lawrence Keddy
Stayton	OR	Pacific Power & Light
Vaucluse	SC	Graniteville Corporation
Warren Glen	NJ	James River Corp/Riegel Division
Wiscoy Station 170	NY	Rochester Gas & Electric Corp.

Question 2: Please identify all projects which the Commission had previously found to be non-jurisdictional, but were subsequently found to be jurisdictional, or are currently under investigation as to jurisdiction. Please provide the Committee a copy of all related orders.

Answer: Three projects which the Commission had previously found not to require licensing were subsequently found to require licensing. Six other projects of this type are under investigation. These nine projects are listed in TABLE 4. Copies of the Commission's orders regarding these projects are attached.

Due to the voluminous nature of the material submitted they have not been reprinted here.

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TABLE 4

PROJECTS FOUND TO BE JURISDICTIONAL:

DOCKET NUMBER	PROJECT NUMBER	PROJECT NAME	ORIGINAL ORDER ISSUED	NEW ORDER ISSUED
DI-10	UL87-13	RILEY	7/25/21	3/16/87
DI-175	P-2694	QUEEN'S CREEK	2/18/47	10/20/76 1/
DI-15	EL88-37	DIX	1/24/22	12/21/88 2/

PROJECTS UNDER REVIEW:

DOCKET NUMBER	PROJECT NUMBER	PROJECT NAME	ORIGINAL ORDER ISSUED
E-6208	UL89-25	AUSTIN	4/6/49
	UL89-26	MARBLE FALLS	4/6/49
	UL89-27	GRANITE SHOALS	4/6/49
DI-101	UL89-28	INKS	7/8/27
	UL89-29	BUCHANAN	7/8/27
DI-181		NEVERSINK	2/19/48

1/ Affirmed, Nantahala Power and Light Co. v. Federal Power Commission, 384 F.2d 200 (4th Cir. 1967).

2/ Rehearing pending.

Question 3: Please provide the Committee a list of hydroelectric projects which have been, or are, on the Commission's UL docket. Indicate the disposition of those dockets and provide the Committee with a copy of the Commission's order if action has been taken.

Answer: The projects that have been, or are, on the Commission's UL docket are listed in TABLE 5. Attached are copies of orders issued by Commission staff and the Commission in these dockets.

Due to the voluminous nature of the material submitted they have not been reprinted here.

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TABLE 5

DETERMINATION OF UNLICENSED DOCKETS

Project Number	Project Name	State	Determination of Order
UL86-1	Tower	MI	Licensing Required
UL86-2	Paper Mill Dam	MI	Licensing Required 1/
UL86-3	Allegan City Dam	MI	Licensing Required
UL87-1	Moores Park	MI	Licensing Required
UL87-2	North Lansing	MI	Licensing Required
UL87-3	Upper Occoquan	VA	Licensing Required
UL87-4	Niles	MI	Licensing Required
UL87-5	Pardeeville	WI	Licensing not required
UL87-6	Poysippi	WI	Licensing Required
UL87-7	Constantine	MI	Licensing Required
UL87-8	AuTrain	MI	Licensing Required 1/
UL87-9	Lower Occoquan	VA	Licensing Required
UL87-10	Imperial Paper	NY	Licensing Required
UL87-11	Mix	MI	Licensing Required
UL87-12	Smithville	MI	Licensing Required
UL87-13	Riley	MI	Licensing Required
UL87-14	Hoist	MI	Licensing Required 1/
UL87-15	McClure	MI	Licensing Required 1/

1/ Appeal pending.

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Project Number	Project Name	State	Determination of Order
UL87-16	Bennetts Bridge	NY	Licensing Required 2/
UL87-17	Lighthouse Hill	NY	Licensing Required 2/
UL87-18	Badger Pond	NH	Licensing Required
UL87-19	Central	MN	Licensing Required
UL87-20	Hoot Lake	MN	Licensing Required
UL87-21	Dayton Hollow	MN	Licensing Required
UL87-22	Friberg Dam	MN	Licensing Required
UL87-23	Pisgah	MN	Licensing Required
UL87-24	Portland	MI	Licensing Required
UL87-25	Appleton (Lower)	WI	Licensing not required
UL87-26	Irving	MI	Licensing Required
UL87-27	Middleville	MI	Licensing Required
UL87-28	Eustis Dam	ME	Licensing Required
UL87-29	Pinnacles	VA	Licensing Required
UL87-30	Three Rivers	MI	Licensing Required 2/
UL88-1	Dix	KY	Licensing Required 2/
UL88-2	Falls River	CT	Licensing Required
UL88-3	St. Louis	MI	Licensing Required
UL88-4	Oakdale Station	MA	Licensing Required
UL88-5	Cosgrove	MA	Licensing Required
UL88-6	Pilot Knob	CA	Licensing not required
UL88-7	Drop 2	CA	Licensing not required

2/ Rehearing pending.

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Project Number	Project Name	State	Determination of Order
UL88-8	Drop 3	CA	Licensing not required
UL88-9	Drop 4	CA	Licensing not required
UL88-10	Drop 5	CA	Licensing not required
UL88-11	Drop 1	CA	Licensing not required
UL88-12	Carvers Falls	VT	Licensing Required
UL88-13	Glen	VT	Licensing not required
UL88-14	Patch	VT	Licensing not required
UL88-15	Pittsford	VT	Licensing not required
UL88-16	Salisbury	VT	Licensing not required
UL88-17	Silver Lake	VT	Licensing Required 1/
UL88-18	Dashville	NY	Licensing not required
UL88-19	Allen Falls	NY	Licensing Required
UL88-20	Berrien Springs	MI	Licensing not required
UL88-21	Parishville	NY	Licensing Required
UL88-22	Sturgeon	NY	Licensing not required
UL88-23	Cedar Falls	WA	Licensing Required
UL88-24	Martinsville	VA	Licensing not required
UL88-25	Estes Lake Dam	ME	Licensing Required
UL88-26	Hartenstene Dam	MI	Licensing not required
UL88-27	Wilson Ponds	ME	Licensing not required
UL88-28	Leighs Mill	ME	Licensing not required
UL88-29	Dwight	MA	Licensing Required
UL88-30	Star Mill	IN	Licensing Required 1/

1/ Appeal pending.

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Project Number	Project Name	State	Determination of Order
UL88-31	Abbeville	SC	Licensing Required
UL88-32	South Berwick Dam	ME	Licensing Required
UL88-33	Red Bridge	MA	Licensing Required
UL88-34	Putts Bridge	MA	Licensing Required
UL88-35	Indian Orchard	MA	Licensing Required
UL88-36	Carthage	NY	Licensing Required
UL88-37	Kimberly Dam	WI	Licensing Required
UL88-38	Ledbetter Lake	NC	Licensing not required
UL89-1	Grand Falls	ME	Licensing not required
UL89-2	Woodland	ME	Licensing not required
UL89-3	Apthorp	NH	Licensing Required
UL89-4	Filtrine	NH	Licensing Required
UL89-5	Niles	MI	NOT DETERMINED
UL89-6	Cobble Mountain	MA	Licensing not required
UL89-7	Rocky Mount Mills	NC	NOT DETERMINED
UL89-8	Indian River	AK	Licensing Required 1/
UL89-12	McKenzie	OR	Licensing Required
UL89-13	Edison Sault	MI	Licensing not required
UL89-14	Big Falls	WI	Licensing Required
UL89-15	Blackstone Mills	PA	Licensing Required 1/
UL89-16	Old Falls	ME	Licensing Required 1/

1/ Appeal pending.

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Project Number	Project Name	State	Determination of Order
UL89-17	Montello	MI	NOT DETERMINED
UL89-18	Turner Shoals	NC	Licensing not required
UL89-19	Tuxedo (L.Summit)	NC	Licensing not required
UL89-20	Daniel Green	NY	Licensing not required
UL89-23	Stayton	OR	NOT DETERMINED
UL89-25	Mansfield	TX	NOT DETERMINED
UL89-26	Marble Falls	TX	NOT DETERMINED
UL89-27	Granite Shoals	TX	NOT DETERMINED
UL89-28	Inks	TX	NOT DETERMINED
UL89-29	Buchanan	TX	NOT DETERMINED
UL89-30	Austin	TX	NOT DETERMINED
UL89-31	Crystal Falls	MI	Licensing Required

ADDITIONAL VIEWS OF SENATOR McCLURE

The Committee report fails to fully address one very critical aspect of the need for this legislation, which is raised by the question: Why don't the owners of unlicensed projects simply apply for a federal license; after all, if they had a license, wouldn't they be protected from "claim jumping"?

The answer is yes they would be protected, but there are several significant and valid reasons why owners of unlicensed projects are reluctant to seek to obtain a license.

First, filing for a license is a direct invitation for others to file a competing application, which is explicitly provided for by the Federal Power Act. There is no guarantee that the owner-applicant would ultimately obtain the license; the competitor might instead obtain it. This is particularly a problem if the competitor to a privately owned project is a municipality, because under the Federal Power Act a municipality is granted "preference" in these situations. Under the provisions of the Federal Power Act, in order to win, the only thing the municipality needs do is to match the owner's license application; it need not propose a better project.

When Congress removed municipal preference for existing projects in the Electric Consumers Protection Act of 1986, it did not do so for existing unlicensed projects. At the time it was not felt necessary to do so because the Federal Energy Regulatory Commission had not yet issued its new interpretations of its licensing powers under the Federal Power Act which have subsequently allowed and encouraged "claim jumping" to occur. There was no Congressional expectation that these projects would ever be licensed.

While that problem might not be quite as significant for new, undeveloped proposed hydro projects—the amounts they have at risk are far less than for an already constructed project, several hundreds of thousands of dollars as opposed to many millions of dollars—it would be a very significant risk for an existing, operating project. The loss of that project would mean an immediate increase in electricity prices for the losing utility's customers, or would be a severe economic blow if the project were owned by an industrial firm. This is the situation with Western Massachusetts Electric Company as described in the Committee report.

Second, filing for a license is expensive. It costs several thousands of dollars, and often many hundreds of thousands of dollars, to prepare the documents necessary for a license application. For a smaller project, that cost alone might make it uneconomic and result in its being shut down. Or the additional costs would be passed on to consumers through higher electricity prices if owned by an electric utility. That is the situation with Kentucky Utilities, as is cited in the Committee report.

Third, once licensed the project would be taken out of state regulatory jurisdiction; the Federal government would then dictate how the project is to be operated and maintained, not the State. That is particularly critical with respect to Western water rights following the U.S. Court of Appeals for the 9th Circuit in its *Rock Creek* decision where the Court upheld FERC's assertion that it had jurisdiction over water rights; an assertion which flies in the face of black letter law. While I disagree with that decision and the corresponding body of case law, the fact is that under that interpretation FERC will usurp state water authority for these projects, a result which I think is unacceptable to Western States.

JAMES A. MCCLURE.

CHANGES IN EXISTING LAW

In compliance with paragraph 12 of rule XXVI of the Standing Rules of the Senate, changes in existing law made by the bill H.R. 1722, as ordered reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italic, existing law in which no change is proposed is shown in roman):

FEDERAL POWER ACT

The Act of June 10, 1920, Chapter 285

PART I

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That a commission is hereby created and established, to be known as the Federal Power Commission (hereinafter referred to as the "commission") which shall be composed of five commissioners who shall be appointed by the President, by and with the advice and consent of the Senate, one of whom shall be designated by the President as chairman and shall be the principal executive officer of the commission. *Provided,* That after the expiration of the original term of the commissioner so designated as chairman by the President, chairmen shall be elected by the commission itself, each chairman when so elected to act as such until the expiration of his term of office.

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SEC. 31. ENFORCEMENT * * *

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SEC. 32. (a) The Commission is prohibited from issuing an original license to any person, State or municipality, other than the owner of the project works, for any project works:

(1) on which there has been no construction within the meaning of section 23(b) since August 26, 1935; or

(2) for which a declaration of intention was filed under section 23 and the Commission did not find within one year of the filing that the project works would affect the interests of interstate or foreign commerce.

(b) The Commission is prohibited from requiring an original license for project works on which there has been no construction within the meaning of section 23(b) since August 26, 1935 if:

(1) the stream, or part thereof, over or in which such project works have been constructed, was not navigable before the time of such construction; or

(2) a declaration of intention was filed under section 23 and the Commission found that the interests of interstate or foreign commerce would not be affected by the construction of such project works.